1920

DEPARTMENT OF COMMERCE

BUREAU OF FISHERIES

HUGH M. SMITH, Commissioner

# FISHERY INDUSTRIES OF THE UNITED STATES

## REPORT OF THE DIVISION OF STATISTICS AND METHODS OF THE FISHERIES FOR 1920

By LEWIS RADCLIFFE

*Assistant in Charge*

APPENDIX V TO THE REPORT OF THE U. S. COMMISSIONER OF FISHERIES FOR 1921

Bureau of Fisheries Document No. 908

PRICE, 30 CENTS

Sold only by the Superintendent of Documents, Government Printing Office
Washington, D. C.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1921

DEPARTMENT OF COMMERCE
BUREAU OF FISHERIES
HUGH M. SMITH, Commissioner

# FISHERY INDUSTRIES OF THE UNITED STATES

## REPORT OF THE DIVISION OF STATISTICS AND METHODS OF THE FISHERIES FOR 1920

By LEWIS RADCLIFFE
*Assistant in Charge*

APPENDIX V TO THE REPORT OF THE U. S. COMMISSIONER OF FISHERIES FOR 1921

Bureau of Fisheries Document No. 908

PRICE, 30 CENTS
Sold only by the Superintendent of Documents, Government Printing Office
Washington, D. C.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1921

Digitized by the Internet Archive
in 2026

https://archive.org/details/fishery-industries-us_1920_908

FIG. 1.—NEW ENGLAND STEAM TRAWLER.

# FISHERY INDUSTRIES OF THE UNITED STATES.

## REPORT OF THE DIVISION OF STATISTICS AND METHODS OF THE FISHERIES FOR 1920.[1]

By Lewis Radcliffe, *Assistant in Charge.*

CONTENTS.


| | Page. |
|---|---|
| Introduction | 5 |
| Summary of operations | 5 |
| Service | 6 |
| Aid in improving fishing operations | 7 |
| Fishery intelligence service | 7 |
| Use of aircraft | 7 |
| New England fishery intelligence service | 9 |
| Notes on fishing gear | 9 |
| Paranzella net | 9 |
| Lampara net | 12 |
| Herring gill net | 14 |
| Smelt net | 14 |
| Trammel net | 14 |
| Development of improvements in methods of handling, distributing, and marketing | 15 |
| Fresh fish | 15 |
| Kippered fish | 15 |
| Increasing the use of fish as food | 16 |
| The haddock | 16 |
| Frozen fish | 17 |
| Technological investigations | 17 |
| Salting river herring | 17 |
| Refrigeration of fish | 18 |
| Canning of Pacific coast fishes | 18 |
| Preservation of fish nets | 19 |
| Increasing the use of by-products of fisheries | 19 |
| Fish oils | 19 |
| Fish scrap and meal | 20 |
| Fish leather | 20 |
| Shark fins | 21 |
| Pearl essence or fish-scale essence | 21 |
| New England vessel fisheries | 22 |
| General statistics | 22 |
| Species | 42 |
| Cod | 42 |
| Haddock | 43 |
| Hake | 43 |
| Pollock | 43 |
| Cusk | 43 |
| Halibut | 43 |
| Mackerel | 44 |
| Swordfish | 44 |
| Flounders | 44 |
| Herring | 45 |
| Vessel fisheries at Seattle, Wash | 45 |
| Fishery products received at Municipal Fish Wharf and Market, Washington, D. C | 49 |


[1] Appendix V to the Report of the U. S. Commissioner of Fisheries for 1921. B. F. Doc. 908.

Page.
Shad fishery of the Hudson River ..... 51
Shad and alewife fishery of the Potomac River ..... 51
Fish, frozen ..... 52
Cold-storage holdings during 1920 ..... 52
Quantities frozen during 1920 ..... 53
Fisheries of California in 1920 ..... 54
Common and scientific names of fishes ..... 55
Products ..... 56
Fisheries of the South Atlantic States in 1918 ..... 59
Earlier publications ..... 60
Common and scientific names of fishes ..... 60
General statistics ..... 61
Fisheries of North Carolina ..... 70
Fisheries by counties ..... 72
Fisheries by apparatus ..... 80
Industries ..... 91
Menhaden industry ..... 91
Wholesale trade ..... 91
Canning industry ..... 91
Fisheries of South Carolina ..... 92
Fisheries by counties ..... 93
Fisheries by apparatus ..... 95
Industries ..... 97
Wholesale trade ..... 97
Oyster-canning industry ..... 97
Fisheries of Georgia ..... 98
Fisheries by counties ..... 99
Fisheries by apparatus ..... 102
Industries ..... 104
Wholesale trade ..... 104
Canning industry ..... 104
Fisheries of east coast of Florida ..... 105
Fisheries by counties ..... 105
Fisheries by apparatus ..... 109
Industries ..... 114
Menhaden industry ..... 114
Wholesale trade ..... 115
Canning industry ..... 115
Summary of the fisheries of Florida in 1918 ..... 115
Sponge fishery of Florida ..... 117
Summaries of the fisheries of the Gulf States for various years ..... 119
Fisheries of the New England States in 1919 ..... 120
Earlier publications ..... 120
Common and scientific names of fishes ..... 121
General statistics ..... 122
By-products ..... 131
Fisheries of Maine ..... 132
Fisheries by counties ..... 132
Fisheries by apparatus ..... 137
Salmon fishery of Penobscot River and Bay ..... 145
Humpback salmon ..... 147
Industries ..... 147
Wholesale fishery trade ..... 147
Smoked-fish industry ..... 148
Canning industry ..... 148
Sardine industry in 1919 and 1920 ..... 150
Fisheries of New Hampshire ..... 152
Fisheries of Rockingham County ..... 153
Fisheries by apparatus ..... 153
Wholesale fishery trade ..... 154
Fisheries of Massachusetts ..... 154
Fisheries by counties ..... 155
Fisheries by apparatus ..... 160
Industries ..... 171
Wholesale fishery trade ..... 171
Smoked, canned, and by-product industries ..... 171

Fisheries of the New England States in 1919—Continued. Page.
Fisheries of Rhode Island ..... 172
Fisheries by counties ..... 174
Fisheries by apparatus ..... 176
Wholesale fishery trade ..... 180
Fisheries of Connecticut ..... 181
Fisheries by counties ..... 181
Fisheries by apparatus ..... 184
Wholesale fishery trade and menhaden industry ..... 187

## INTRODUCTION.

During the period of the war the production and consumption of fishery products were stimulated, receiving much encouragement from governmental and other agencies as a war measure. This resulted in making provision for a considerable expansion of facilities for the capture, preservation, and marketing of fishery products, the fulfillment of which extended into the postwar period. In this readjustment period a heavy decline in the consumption of fish not only in the United States but in other countries has been apparent. Added to this advancing prices of labor and materials, curtailment in export trade, and other factors, such as labor difficulties, produced in some respects one of the most difficult and threatening situations in the history of the industry. Even in 1919, while provisions for greater production were being fulfilled, the effects of these conditions were felt and the curtailment in production in certain of our important fisheries as compared with the previous year was quite marked. For example, many of the large New England trawlers were tied up for lack of markets. The catch of the vessel fisheries centering at Boston and Gloucester, Mass., and Portland, Me., in 1919 decreased more than 9,000,000 pounds as compared with 1918 and in 1920 there was a further decrease in excess of 16,000,000 pounds. The packs of salmon and sardines were materially curtailed in 1920, and increasing difficulty has been experienced in marketing such fish as groupers on the Gulf coast, considerable quantities being dumped for lack of markets.

These conditions have compelled a much closer, more serious study of the economic situation. As a result there has been an unusually heavy demand upon the Bureau for statistical and technological data, the conduct of investigations which promise improvement in practices and economies of operation, aid in stimulating the consumption of fish, and the extension of the use of fishery products in the arts and industries. Although the reduction in the division's appropriation for the fiscal year 1921 to $7,500 has compelled the practical abandonment of technological research for the current fiscal year, an effort has been made to render the industry the fullest possible measure of service for its betterment and the benefit of the consuming public.

## SUMMARY OF OPERATIONS.

For effecting improvements and economies in the methods of conducting the fisheries, arrangements were perfected by the Bureau for an extended trial of seaplanes to determine their commercial value as an adjunct to the fisheries, and a fishery intelligence service was initiated in New England for supplying information as to the presence of schooling fish in the vicinity of advantageously located

lightships and lighthouses. In addition, information regarding the construction and operation of lesser known fishing gear and methods has been obtained for the use of the fisheries. The need for improvements in the methods of handling, distributing, and marketing of fishery products has been felt, and improvements, such as the exercise of greater care in handling fish by eliminating the use of pitchforks, the avoidance of needless bruising of the fish, and the adoption of some form of precooling on the vessels, has been urged upon the producers. Much assistance has been given producers in the securing and transporting of materials such as salt, barrels, etc., which were required for immediate use in preserving fish in abundance.

In the field of fisheries technology practical application has been made of methods developed in the course of its fish-salting investigations, and studies have been made and reports prepared on the preservation of fish nets and methods of determining the fatness of certain fishes. The investigations of the problems of the commercial fish canner have been continued at San Pedro, Calif. The Bureau has continued its efforts to stimulate the saving of waste products of the fisheries and their conversion into marketable commodities with excellent success. The production of fish meal and fish leather, the saving of such articles as shark fins, and the utilization of fish scales have materially increased.

The statistical activities of the division have included the collection of detailed statistics of the vessel fisheries centering at Boston and Gloucester, Mass., Portland, Me., and Seattle, Wash., and the publication of the results in monthly and annual bulletins; and canvasses of the shad fishery of the Hudson River, of the shad and alewife fishery of the Potomac River, and of the Maine sardine industry, all for the calendar year 1920. A canvass of the fisheries of the New England States for the calendar year 1919 was undertaken and the field work completed about March 1, 1921. The results of these canvasses are contained in the present report, together with the detailed tables of the canvass of the fisheries of the South Atlantic States for 1918, a summary of the storage holdings of frozen fish during 1920, and the quantity of fishery products by species and by months for California in 1920. The report also contains statistical data on the production of fish oils, scrap, and meal, a summary of the fisheries of both coasts of Florida in 1918, a summary of the fisheries of the Gulf States for various years, certain sponge statistics, etc.

## SERVICE.

Units of the Federal Government such as this division receive an appropriation for the rendering of service. It is usually difficult to ascertain on a monetary basis the value of the service rendered, and the organization is not infrequently criticized as not rendering service in proportion to the facilities supplied for its work or through misunderstanding of its limitations. It may therefore be of interest to refer to the appreciation expressed by competent persons of the value of several phases of its work.

Of the Bureau's new method of salting fish, a practical demonstration of which was given on the St. Johns River, Fla., one writer states:

> We consider the information and the demonstration worth thousands of dollars to us alone, not saying what it is worth to the industry at large on the St. Johns River.

Regarding the introduction of fish meal production on the Atlantic seaboard, one writes:

> We estimate that the work done by your force in behalf of fish meal increased the value of last season's fish products at this point considerably above $100,000, and I am frank to say that were it not for this new market I do not think it would be possible for us to operate our plants this season, owing to the very unsettled conditions in the fertilizer trade.

Of the Bureau's paper on Preservation of Fish Nets, an authority in the net and twine trade states:

> It was a surprise to find it had been possible to prepare such an interesting and instructive article, and the author is to be congratulated on his splendid work.

## AID IN IMPROVING FISHING OPERATIONS.

Activities in this field have been confined mainly to aiding in the determination of the value of aircraft for spotting fish, to provision for supplying reports from certain lightships and lighthouses regarding the presence of schooling fish to the trade, and to studies of construction and operation of fishing apparatus, the use of which is limited.

### FISHERY INTELLIGENCE SERVICE.

The search for fish in the sea is difficult and hazardous. In proportion to cash returns, the expenditure of time, labor, and materials is heavy. Vessels may seek catches of bluefish, mackerel, menhaden, or tuna for weeks without appreciable results. A vessel may discover good fishing but in the absence of means of communication can not advise other relatively near-by vessels operating unsuccessfully of the location of the schools. In a calling conducted under such handicaps it is important that use be made of every available aid and of every new development of science which promises to increase efficiency of operation without danger to the supply of the future.

As early as 1883 the aid of the United States Life Saving Service was enlisted by the United States Commission of Fish and Fisheries in reporting the presence of whales and other cetaceans and rare sharks and supplying information regarding them. At various times the Bureau's vessels have been employed in behalf of the fishing industry in locating schools of fish such as mackerel and tuna. In 1917, the Bureau of Fisheries, with the aid of the Washington-Alaska Military Cable and Telegraph System, operated by the War Department, inaugurated an intelligence service to communicate by telegraph to a number of coastal towns in Alaska the current prices of certain species of fishes offered at Seattle and Ketchikan. This service furnishes at a very small cost information which could not be gotten by private individuals without considerable effort and cost and is appreciated. Details of this service are to be found in Alaska Fisheries and Fur Industries reports of the Bureau for the years 1917 to 1921.

### USE OF AIRCRAFT.

In April, 1919, attended by representatives of the New England fisheries, the Bureau of Fisheries, and the patrol division of Naval Aviation, a conference was held in Washington, D. C., at which tentative arrangements were made for a properly qualified observer

to make flights over such parts of the Atlantic as seemed necessary for spotting schools of fish, such as mackerel, and for forwarding the information obtained to organizations of the fisheries. At this meeting the subject of direct communication between planes and fishing vessels by means of the radio telephone was considered. The possibility of employing seaplanes to advantage in the menhaden fishery was also called to the attention of operators in the Chesapeake region, but nothing resulted from either of these negotiations during the year.

On July 28, 1919, W. W. Welsh, scientific assistant, Bureau of Fisheries, made a flight of about 1½ hours in a naval seaplane from Cape May, N. J., to Five Fathom Bank. This flight was made at a speed of about 40 miles an hour at an altitude of 500 to 1,000 feet. Mr. Welsh reported that no schools of menhaden were breaking water at the surface but that large numbers of small schools were observed at estimated depths of from 2 to 10 feet or more. He stated that:

> The range of visibility of the menhaden schools varied according to the depth of the school and the angle of incidence of the sun's rays. Had the fish been ruffling the surface they could have been seen as far as the size of the school and the atmospheric conditions permitted. This was evident by the visibility of tide rips and cat's-paws of wind upon the surface. The deeper the school the more necessary it was to approach it in order to see it. The deepest schools observed were only visible from directly above. When the sun's rays were reflected from the surface, it was impossible to see anything, and the visibility improved as the eye was directed away from the angle of incidence of the sun. On the particular day in question the majority of the schools of fish were at such depth that they were invisible at a greater angle than 45 or 50° from the nadir, and then only on the side of the plane away from the sun. But some schools nearer the surface could be seen much farther off. Besides the general value of such observations, in no other way can such a clear idea be obtained of the abundance or scarcity of schooling fish and the characteristic appearance of the schools. * * *
>
> The most evident opportunity for the practical use of aircraft in the commercial fisheries at the present time lies in their employment as scouts for the purse-seine fishermen in the pursuit of such species as menhaden, mackerel, bluefish, bluebacks, kyacks, and other schooling fish. In the case of the spring mackerel fishery it is believed that the use of aircraft would save much time in locating the fish upon their first appearance and in enabling the fishermen to keep in touch with the fish as they appeared farther north.

In January, 1920, representatives of the Naval Aviation Service and the Bureau of Fisheries again discussed the possibility of using seaplanes in locating fish on the north Atlantic coast, and on February 25, at the request of the Secretary of Commerce, the Secretary of the Navy authorized the experiment, and the proposal was placed before various fishery organizations. The menhaden fishermen showed constructive interest in the subject, and the commandant of the Fifth Naval District detailed two Navy seaplanes, with pilots, and the fishing companies provided observers familiar with the species.

The fishing areas in Chesapeake Bay and along the coast between Assoteague and Bodie Island Lights were blocked off into lettered sections and numbered subdivisions for expediency in transmitting information as to the location of schools sighted. At first this information was communicated to the fishing vessels by signal flags suspended from the plane. Later after the installation of radio equipment on two vessels and at the shore station of one of the companies, a radio operator accompanied the plane to transmit the messages as soon as the fish were located. These daily patrols were continued from June 14 to October 1, when the Navy Department abandoned

them on the ground that the experiment had fully demonstrated the commercial value of planes in this fishery. This first thorough test of aviation as an adjunct to the commercial fisheries has proved of great benefit to the industry, and the purchase of planes by the fishing companies is being seriously considered.

In December, 1919, as a result of arrangements between the naval authorities, the fishing interests, and the State commission, naval seaplanes were given trials at San Diego, Calif., for spotting schools of fish. They are reported to have been of some value in locating schools of sardines, but their usefulness in locating albacore, tuna, and yellowtail remains to be more definitely established. In the summer of 1920 a hydroairplane was operated for a time at San Pedro, but was not entirely successful. A dirigible trip was also made at San Diego by an official of the State commission for the same purpose. The aviation service of the United States Coast Guard, Treasury Department, has shown an interest in the utility of fish spotting in connection with its air patrol and training, and the Bureau of Fisheries is endeavoring to effect cooperation between the aviation station of that service at Morehead City, N. C., and the fishermen of that region.

The work done has yielded results of value, but should be continued for the purpose of ascertaining the value of aircraft in other fisheries, such as mackerel, bluefish, tuna, and herring.

### NEW ENGLAND FISHERY INTELLIGENCE SERVICE.

In the summer of 1920 the Bureau investigated the possibilities of securing useful information daily from keepers of certain lightships and lighthouses as to the presence of schooling fish, such as mackerel and pollock. Through the courtesy of the Director of Naval Communications and the Commissioner of Lighthouses, the Bureau of Fisheries made arrangements to have the occurrence of such fishes reported by the keepers of *Pollock Rip*, *Nantucket Shoals*, and *Fire Island* lightships. This service was initiated about November 1, 1920, messages reporting any observations made during the preceding 24 hours being sent by radio at noon daily from these vessels to shore stations and forwarded to the Bureau's agent at Boston for dissemination and transmittal to agents in Gloucester and Portland. It was appreciated that the service was being established near the close of the season, but it was desired to have it in efficient working order on the resumption of more active fishing in the spring. If the service proves of value it is planned to increase the number of stations from which reports are received.

## NOTES ON FISHING GEAR.

The following descriptions of fishing gear employed in the California fisheries have been furnished by R. A. Coleman, agent, Bureau of Fisheries. The use of the paranzella and lampara nets in American waters is practically restricted to southern California.

### PARANZELLA NET.

The paranzella is the net chiefly used in deep water and bottom fishing on the California coast, especially by the large fishing companies operating with steam and power boats. This type of net (the

Italian word "paranzella" means a sloop or fishing boat propelled by sails, and this net was always used with such boats) has been in use on the Mediterranean for a long period. It is said to have been introduced in California in 1876. It is a heavy and strongly constructed net, intended for dragging the bottom in a manner similar to the otter trawl, although it is of quite different make. It proves an efficient means of taking fish.

There is no strict uniformity in the method of construction. The differences are, however, relatively slight, and the type is constant. The nets differ in length from 25 to 35 fathoms and in form according to the use to be made of them and individual fancy. They are made in several sections or "pieces," varying from four to eight.

The net illustrated (fig. 2) and on which the discussion is based is the true type of the paranzella and has eight pieces. The first, the wings, which are 150 meshes (3-inch) in length by 300 in width, are made of No. 9 or 12 cotton twine. The wings are often more extended, if it is desired to obtain greater sweep, and may reach considerable length. The second piece is 200 meshes (2½-inch) in length by 300 in width, of No. 9 twine. The third is 100 meshes in length (2½-inch) by 250 in width, of No. 12 twine. The fourth is 60 meshes in length (2½-inch) by 225 in width, of No. 18 twine. The fifth is 18 or 20 meshes (3¼ or 3½ inch) in length by 270 in width, of No. 42 or 60 twine, and is practically a portion of the bunt. Many nets omit this piece entirely. The sixth piece forms the bag, or bunt, proper. It is 60 meshes (4-inch) in length by 220 in width, of No. 84 twine. Sometimes the top is made of 3½-inch mesh, No. 42 twine, while the sides and bottom are 4-inch mesh, of No. 84 twine or rope. The other pieces are the ques (*scagnetto*, in Italian), which serve to strengthen the net, and especially to help carry the weight of the bag. The top que is 62 meshes (4-inch) wide at the front end, tapering to 30 meshes at the back end, reduction being made at the center, 9 fathoms long. The bottom que is 42 meshes (8-inch) wide in front, tapering to 30 meshes at the other end, reduction being made in the center, and is 8 fathoms long, No. 64 twine being used for both ques. It will be noted that the bottom que is about a fathom behind the top que.

The head of the top que is attached to the rope (3½-inch soft manila, which carries the wings and takes the strain of the net) in a special manner, as illustrated in the drawing of the net. It does not follow the curve, but its end is straight and is lashed to the rope (using No. 60 or 84 twine), gradually lengthening at the sides of the que to accommodate the curve. Two meshes are picked up by the needle, an overhand knot is made in them, and the lashing led to the rope, when three round turns are taken and fastened.

A crown of about 20 corks, graduated in size, is sometimes attached to the front end of the top que to assist in sustaining it when the strain is expected to be heavy.

For convenience in removing the fish from the bag, either two or three openings, or "doors," are left in the top. These are 20 or more meshes in length and are trimmed with 1 or 1½ inch manila rope and lashed together with No. 9 or No. 12 thread rope. There is also a bottom, or end, door to the bag, trimmed as the others. It is closer to the bottom of the net than to the top.

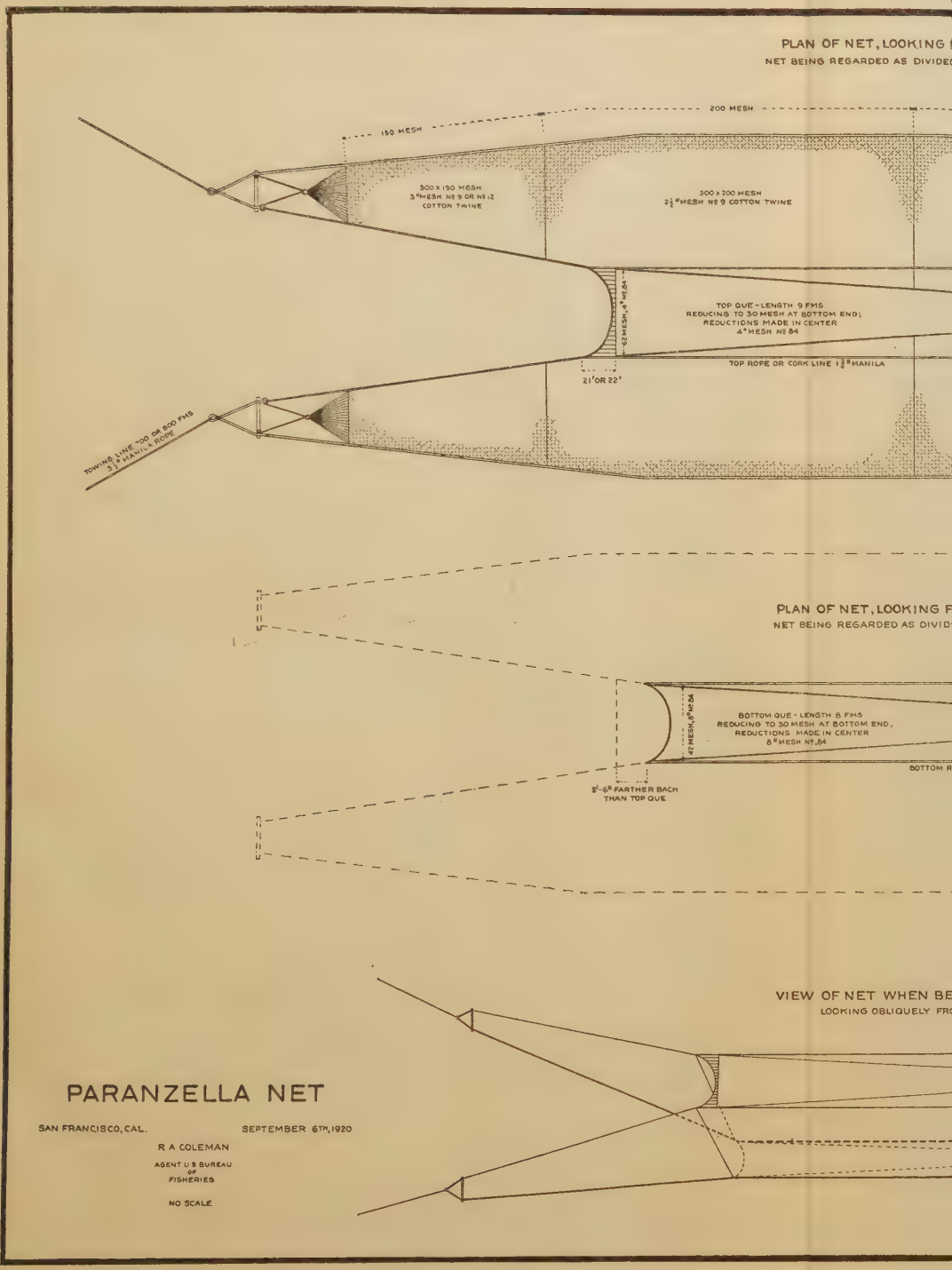
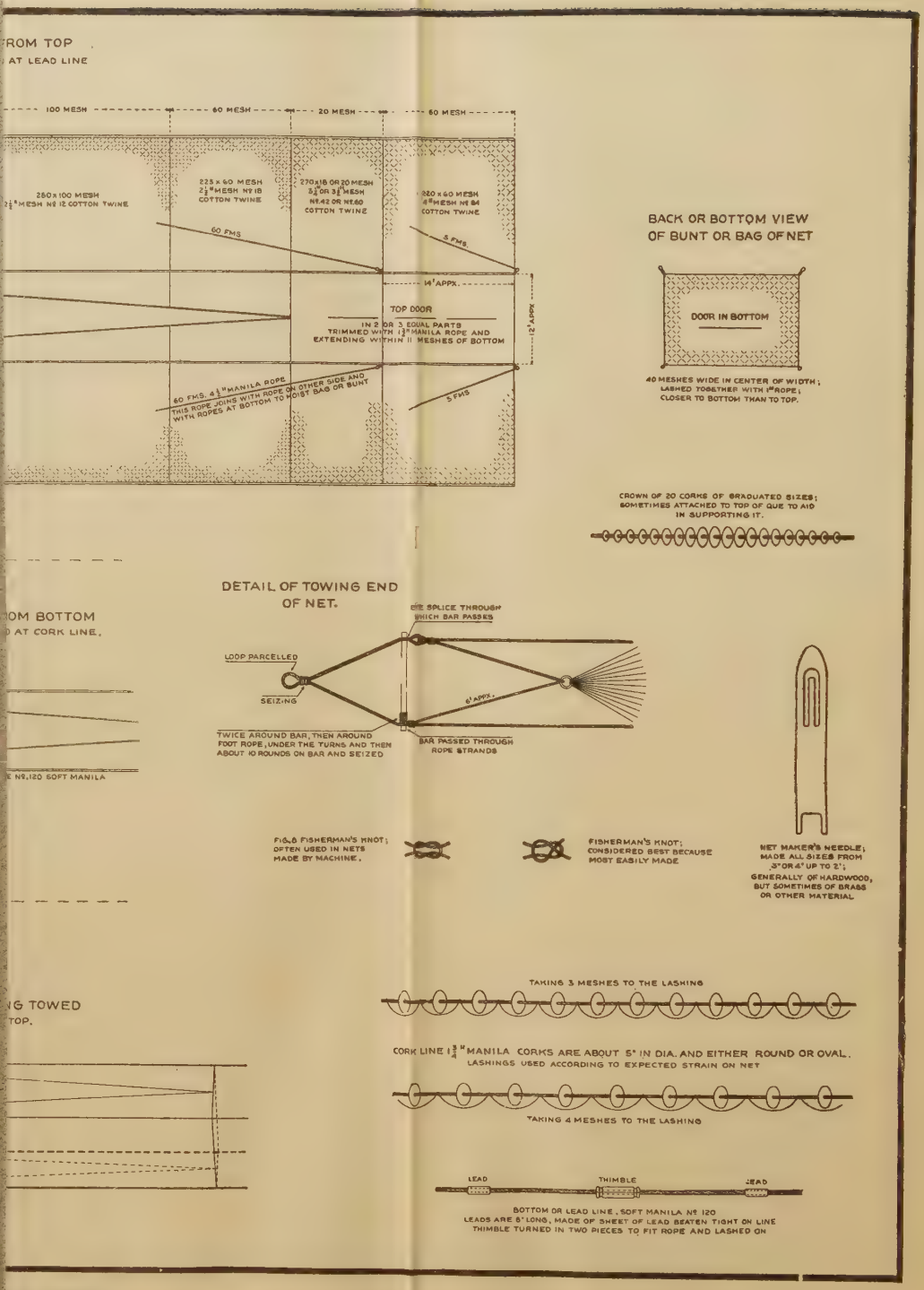

PLAN OF NET, LOOKING
NET BEING REGARDED AS DIVIDED
200 MESH
150 MESH
300 X 150 MESH
3 MESH Nº 9 OR Nº 12
COTTON TWINE
300 X 200 MESH
2½ MESH Nº 9 COTTON TWINE
TOP QUE - LENGTH 9 FMS
REDUCING TO 30 MESH AT BOTTOM END;
REDUCTIONS MADE IN CENTER
4 MESH Nº 84
62 MESH, 4 Nº 84
TOP ROPE OR CORK LINE 1½ MANILA
21' OR 22'
TOWING LINE 700 OR 800 FMS
3½ MANILA ROPE
PLAN OF NET, LOOKING F
NET BEING REGARDED AS DIVID
BOTTOM QUE - LENGTH 6 FMS
REDUCING TO 30 MESH AT BOTTOM END,
REDUCTIONS MADE IN CENTER
6 MESH Nº 84
42 MESH, 6 Nº 84
BOTTOM R
3'-6" FARTHER BACK
THAN TOP QUE
VIEW OF NET WHEN BE
LOOKING OBLIQUELY FR
PARANZELLA NET
SAN FRANCISCO, CAL.
SEPTEMBER 6TH, 1920
R A COLEMAN
AGENT U S BUREAU
OF
FISHERIES
NO SCALE

FIG. 2.—PARAN


FROM TOP
AT LEAD LINE
100 MESH
80 MESH
20 MESH
80 MESH
250 x 100 MESH
2½" MESH Nº 12 COTTON TWINE
225 x 80 MESH
2½" MESH Nº 18
COTTON TWINE
270 x 18 OR 20 MESH
3¼ OR 3½" MESH
Nº 42 OR Nº 60
COTTON TWINE
220 x 60 MESH
4" MESH Nº 84
COTTON TWINE
60 FMS
5 FMS
14' APPX.
TOP DOOR
IN 2 OR 3 EQUAL PARTS
TRIMMED WITH 1¾" MANILA ROPE AND
EXTENDING WITHIN 11 MESHES OF BOTTOM
12' APPX.
60 FMS. 4½" MANILA ROPE
THIS ROPE JOINS WITH ROPE ON OTHER SIDE AND
WITH ROPES AT BOTTOM TO HOIST BAG OR BUNT
5 FMS
BACK OR BOTTOM VIEW
OF BUNT OR BAG OF NET
DOOR IN BOTTOM
40 MESHES WIDE IN CENTER OF WIDTH;
LASHED TOGETHER WITH 1" ROPE;
CLOSER TO BOTTOM THAN TO TOP.
CROWN OF 20 CORKS OF GRADUATED SIZES;
SOMETIMES ATTACHED TO TOP OF QUE TO AID
IN SUPPORTING IT.
DETAIL OF TOWING END
OF NET.
THE SPLICE THROUGH
WHICH BAR PASSES
LOOP PARCELLED
SEIZING
6' APPX.
TWICE AROUND BAR, THEN AROUND
FOOT ROPE, UNDER THE TURNS AND THEN
ABOUT 10 ROUNDS ON BAR AND SEIZED
BAR PASSED THROUGH
ROPE STRANDS
OM BOTTOM
AT CORK LINE.
Nº 120 SOFT MANILA
FIG. 8 FISHERMAN'S KNOT;
OFTEN USED IN NETS
MADE BY MACHINE.
FISHERMAN'S KNOT;
CONSIDERED BEST BECAUSE
MOST EASILY MADE
NET MAKER'S NEEDLE;
MADE ALL SIZES FROM
.3" OR 4" UP TO 2';
GENERALLY OF HARDWOOD,
BUT SOMETIMES OF BRASS
OR OTHER MATERIAL
NG TOWED
TOP.
TAKING 3 MESHES TO THE LASHING
CORK LINE 1 3/16" MANILA CORKS ARE ABOUT 5" IN DIA. AND EITHER ROUND OR OVAL.
LASHINGS USED ACCORDING TO EXPECTED STRAIN ON NET
TAKING 4 MESHES TO THE LASHING
LEAD
THIMBLE
LEAD
BOTTOM OR LEAD LINE, SOFT MANILA Nº 120
LEADS ARE 6" LONG, MADE OF SHEET OF LEAD BEATEN TIGHT ON LINE
THIMBLE TURNED IN TWO PIECES TO FIT ROPE AND LASHED ON

ELLA NET.

The cork line is about 35 fathoms long, of 1¼-inch manila rope. It carries about 35 corks on each side. These corks are either round or oval and are about 6 inches in diameter, perforated in the center for reeving on the line.

The lead line, which really carries the weight and strain of the whole net, is of soft manila, and varies in circumference from 3½ to 4½ inches, according to size of net and preference of maker. The lead line bounds not only the longitudinal bottom of the net, but likewise the entire four sides of the end of the bunt, thus giving great strength and lifting power to that part. It is also practically continuous over the front of the net, being carried along the lower sides of the wings to the towing bar, and thence around the top of the wings and front, or top que, and of the net, making a complete circuit. Sometimes the portion bounding the upper sides of the wings and top que is a half inch or so less circumference (of soft manila) than the lead line proper. This upper portion of the line carries 6 or 8 wooden thimbles to the side, similar to those on the lead line, though generally more rounded in shape. These are intended to prevent chafing when the net is hoisted aboard.

The lead line proper carries 6 to 10 leads on each side. These leads weigh 1 pound each. They come in flat pieces and are beaten into place about the line. (Some fishermen say that leads are not necessary at all, as the weight of the net holds it well at the bottom.) In addition there are on each side 4 wooden thimbles about 8 inches long. They are turned in two pieces to fit the rope and are lashed about it. Their purpose is to lessen the chafing.

The towing bar is about 24 inches in length by 2 inches in diameter, of pine or hardwood. For details of the method of its use, and also for the method by which the weight and strain of the net is taken at the towing end, reference is directed to the illustration. The ring by which the net head is attached to the towing bar hangs about 6 feet behind the bar.

The net is hung from the cork line by lashings, or seizings, at intervals of either three or four meshes, according to expected strain, and the loops are allowed to fall about 6 inches below the cork line.

From the front top corners of the bag two 60-fathom, 4½-inch hard manila ropes are attached. These are led to the winch when the net is being hauled, in order to carry the weight of the bag with its load of fish. Two 5-fathom ropes of the same size, or sometimes 3½-inch, are attached to the top back corners of the bag, and when it is desired to hoist the bag on board these are bent onto the 60-fathom ropes at the front end of the bag, which is thus hoisted from its four corners.

The fish are taken from the net through the doors with a heavy scoop net of 2½ or 3 feet diameter, with strong wooden handle. These scoops are sometimes so heavy that it requires two men to operate them.

The net is towed by two 60-foot, or more, seagoing fishing boats. The towing lines or warps are of 3½-inch hard manila 700 or 800 fathoms in length.

Operations are carried on in the following manner: When it has been determined by sounding that a suitable bottom has been found, the boat which carries the net slows down. The other boat comes alongside and passes its towing line to the first. This is attached

to one wing of the net. The boats then separate, the net is shot, and they begin paying out their respective warps through special shackles at the stern. After 50 or 60 fathoms have passed out an iron weight, or sinker, weighing 25 to 35 pounds is attached to each line, in order to sink the net, and the remainder of the rope, 450 or 500 fathoms, is payed out. The towing speed varies from 2½ to 4 knots per hour. The opening in the net is about 12 fathoms from one towing bar to the other. Ordinarily the boats tow about 800 feet apart. In stormy weather this distance is somewhat reduced, and in fine weather is extended.

In some instances fishermen prefer to purchase the bunt of their nets ready-made, in which case it is usually made by machinery. Sometimes, also, other parts of the net are purchased. A figure-eight knot is generally used in machine-made nets, but the parts made by hand are almost always made with the customary fisherman's knot. The illustration is not drawn to scale.

### LAMPARA NET.

This net originated in the Mediterranean, where it has long been in use. It is said to have been brought to California about 1900. The lampara is so called from the Italian word "lampo," meaning lightning, because used chiefly in taking sardines, anchovies, and other small fishes which move with great quickness in the water, flashing as they swim. These fish are usually taken at night, in the "dark of the moon," since by day, or even on moonlight nights, they see the nets and avoid them. The lampara differs from the paranzella in that it is intended to take fish at the surface or at but a short distance below, while the paranzella is dragged on the bottom.

Although the lampara nets are used chiefly for taking sardines and other small fish, especially for bait, some nets of large dimensions—up to 2,000 feet in length by 150 in depth—have been constructed of strong, heavy twine for the capture of larger fish, such as sea bass, barracuda, yellowtail, etc. In these cases the range of size of mesh may vary from 2-inch stretched mesh in the bag to 20-inch at end of wings. So far, however, such nets have not proved a general success, as they are awkward to handle on account of their large size, and the fish captured in them are so powerful that they often tear the net.

The accompanying drawing (fig. 3) and description of the lampara net are based on information supplied by E. M. Nielsen, assistant to the California Fish and Game Commission at Monterey, and were taken from a net of average size and make owned by a local fisherman.

Referring to figure 3 and its legend, it will be noted that section 3 is of heavy netting to withstand wear and tear when the fish are taken out of the net and section 4 acts as a wall to prevent the fish from escaping. Section 5 is light and of small mesh so that the fish do not gill in it; the net is usually fished in the dark of the moon, and the phosphorescence in the water tends to deflect the fish from the wings backward toward the bag of the net. The lead line is ⅞-inch diameter hemp rope and carries lead weights to a weight of about 150 pounds, the leads being about 18 inches apart.

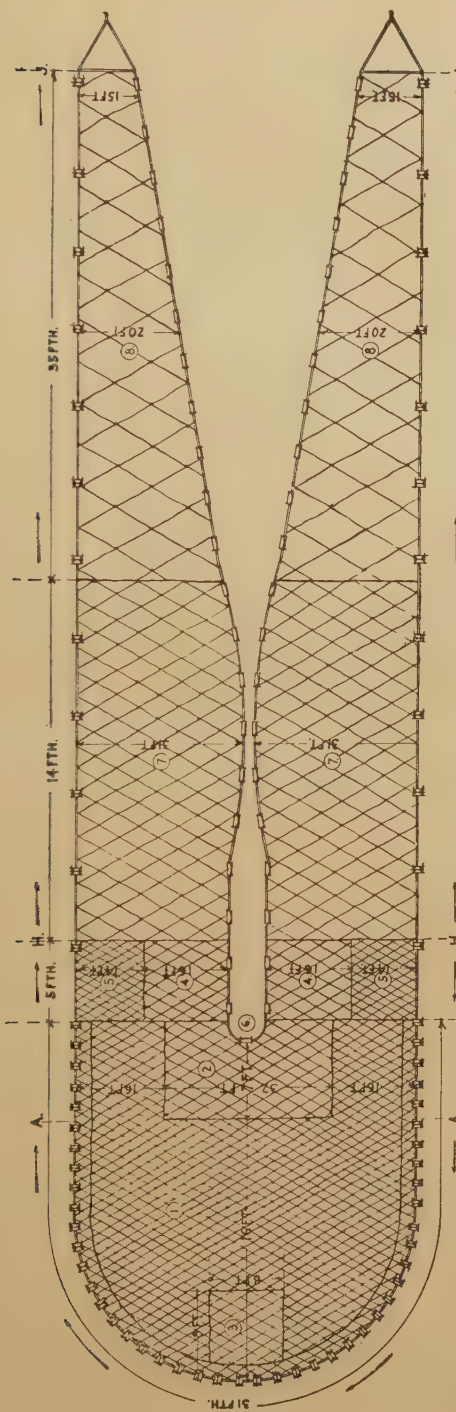



FIG. 3.—Lampara net. Section 1, 26-6 thread, ⅜-inch mesh; 2, Mendocino or key of net 6-ply, 3-inch mesh; 3, heavy netting, 6-ply, 1-inch mesh, 8 by 8 feet; 4, 6-ply, 3-inch mesh; 5, part of bag of 26-6 thread, ⅜-inch mesh; 6, horseshoe, where wings divide; 7, wing-section of 5-inch mesh; 8, wing-section of 8½-inch mesh; *A*, strip of netting 10 inches wide, 16-ply, 1-inch mesh of heavy mesh, to hold bag to cork line and withstand wear and tear; *H–H*, cork line of ⅞-inch diameter hemp rope, 500 corks in pairs, 6-inch interspace between pairs; *H–J*, wing cork lines, 500 corks in pairs on each wing, interspaces about 3 feet.

The lampara net is made of cotton twine and may be operated either with one large boat or with two boats. The operation with one boat is carried out as follows: When a school of fish is located, one end of the net is thrown out with a buoy attached, sometimes anchored; then the boat is pulled around the fish in a circle, paying out the net until the boat is back to the buoy from which it started. Then an anchor is generally put over the side away from the net to hold the boat off. Then the fishermen start hauling both ends of the net from the bow and the stern, until the bag is hauled up alongside. After getting the wings into the boat and the bag alongside, the fish are dipped out into the well or box. The net is then overhauled and made ready for another lay. From three to five men are required to operate in this way.

When two boats are used, the bag is dropped first; then the fish are circled by the boats pulling in opposite directions, paying out the coiled net until they meet, passing one another, one end of the net being passed over the other and the boats anchored. The wings are crossed while the net is being hauled in. The bag is thus hauled up between the boats, when the fish are taken out. Six to eight men are required to operate in this way.

A modification of the lampara has sometimes been used of late, consisting of a purse, or semipurse attachment. It is in all respects a lampara net except that a purse line is added to the bunt of the net, which enables the operators to pull the lead line in more quickly after the net is partly in, thus impounding the fish in the bunt of the net. It is claimed that by this device it is easier to catch the fish in the daytime without their sounding and getting under the net when operating in deep water. A shallower net may be used, thus making its operation quicker and more economical. This device has not, however, been generally adopted.

### HERRING GILL NET.

The herring gill net used in San Francisco Bay, Calif., is usually about 50 fathoms in length by 2 in depth. It is made of 2-inch mesh, 2-ply cotton twine. The top strip of meshes, 3 or 4 inches wide, abutting the cork line, is made of 4 or 5 ply twine to give it greater strength. The cork line is one-half inch diameter manila, with corks, 2 inches in diameter, at intervals of 2 feet. The lead line is three-eighths-inch manila, and the leads, weighing about 4 ounces, are 3 feet apart. The net is operated from one boat and is handled by two men. These nets are generally purchased ready-made.

### SMELT NET.

Smelt nets in use on San Francisco Bay are usually made of linen twine. They are 28 to 30 fathoms long by 10 to 12 feet in depth and are constructed of 1½ or 2 inch mesh. In other respects they resemble the herring nets.

### TRAMMEL NET.

A three-web trammel net observed in use in southern California was 200 fathoms long by 2½ deep. The small web was of 7½-inch mesh, and the large outside webs of 18-inch mesh.

## DEVELOPMENT OF IMPROVEMENTS IN METHODS OF HANDLING, DISTRIBUTING, AND MARKETING.

### FRESH FISH.

One of the most important means for increasing the consumption of fish is to supply the consumer with a product closely approximating the quality of the fish as taken from the water. This necessitates reducing the amount of deterioration from "catch" to consumer to a minimum. Considering the length of time that elapses after the fish are taken from the water until they reach the consumer, some deterioration is inevitable, but that a marked degree of improvement in reducing the amount can be made is undoubtedly possible. With such improvement many persons who now enjoy freshly caught fish, but who rarely buy "fresh" fish in the market, will be added to the list of regular consumers. As deterioration sets in as soon as the fish are dead, the first step is to improve methods of handling the fish on boat or vessel and at the points of distribution.

It is important to handle fish with the greatest possible care, to avoid bruising or forking them, and to avoid warmth. Fish should be handled with the same care as fruits; they should not be forked, bruised, tread on, thrown about needlessly and roughly, or piled too deeply in boat, box, or barrel. Failure to observe these precautions will cause spoilage just as the spoilage of fruits is hastened by similar treatment. The temperature of fish is about the same as that of the water in which they live, usually slightly higher. Fish taken from warm water will therefore spoil more quickly than if taken from cold water. The warmer the water is the greater the care required to prevent spoilage. If the fish taken from warm water are piled deeply it is but natural that the temperature of the mass will shortly begin to rise, with resultant spoilage. It is therefore important to keep the fish away from warmth and to cool fish taken from warm water as quickly as possible.

The Bureau has impressed upon those in the fisheries the importance of avoiding the use of fork or pew as far as practicable, using where necessary only a one-tined fork and forking the fish in the head instead of the body, and has encouraged the installation of precooling devices to remove the body heat of the fish as speedily as practicable. It is believed that a cold brine circulatory system or an adaptation of the system of freezing fish in brine may be worked out for use on vessels or boats. In fact, some experiments have already been made to this end by those in the fisheries.

There is fully as great if not greater need for improving methods of distribution and the handling of the fish in the retail markets. The shipper should consider the advantages of packing the fish in shallow boxes instead of in barrels; and the retailer, in view of the length of time that has elapsed since the fish were caught, should observe every precaution which will retard deterioration as well as offer the fish for sale in an attractive manner and amid sanitary surroundings.

### KIPPERED FISH.

The preservation of fish by smoking is a very ancient and widely known practice. The products preserved in this manner are among the tastiest of foods. The necessity for marketing the product

within a short period of time has restricted the volume of production and confined the practice largely to the centers of consumption. To minimize these difficulties the canning of the smoked fish has received greater attention in recent years, much of the product being labeled as kippered fish. In the preparation of such fish a variety of practices have sprung up. For example, of 10 packs recently examined, in 1 pack the fish were split through the back, in 2 they were unsplit, and in the remaining 7 they were cut lengthwise into separate sections. Nine packs contained headless fish; one, tailless. In Service and Regulatory Announcements No. 26 of the Bureau of Chemistry, issued December 30, 1920, the following tentative definitions are recognized by that bureau:

Kipper.—A fish which has been split through the back from tail to head, eviscerated, lightly salted, and lightly smoked. Example, kippered herring. Kipper unsplit.—A fish which has been headed and eviscerated (but not split), lightly salted, and lightly smoked. Example, kippered herring unsplit.

The characteristic appearance of kippered herring and bloater herring as prepared for the smoked fish market are shown in figure 4.

## INCREASING THE USE OF FISH AS FOOD.

A summary of the conditions affecting the marketing of fish has been given in the introduction to the present report and attention called to the handicaps under which the Bureau has labored in meeting the menacing situation which confronted the industry. Efforts to obtain additional funds for demonstrations in fish cookery and similar activities were unavailing and the Bureau's activities were limited almost wholly to the issuance of helpful economic circulars and placards and to furnishing informative matter.

### THE HADDOCK.

With the recent increase in the number of trawlers operating in the New England fisheries, there has been a large increase in the catch of haddock, resulting in the production of this species in excess of the market demand. To illustrate, the vessel landings at Boston and Gloucester for the three-year period 1918 to 1920 increased about 50 per cent in comparison with the period 1908 to 1910, and for Boston, Gloucester, and Portland, the landings in 1920 were nearly 30 per cent greater than in 1916, while the increase in the price to the fishermen was but $0.006 per pound. The landings of the vessel fisheries at these ports in 1920 amounted to 73,345,581 pounds.

The Bureau has issued a placard and a small cookbook [2] recommending the use of this fish. In this economic circular attention is called to the fact that the haddock is abundant on the great fishing banks which stretch from Cape Cod to Newfoundland, and at certain seasons frequents the shores; that it is a relative of the cod, one of the "dry" fishes, and possesses many of the same qualities, the average constituents of the two fishes, based on a number of analyses, being as follows:

| | Proteins. | Fats. | Ash. | Water. |
|---|---|---|---|---|
| | *Per cent.* | *Per cent.* | *Per cent.* | *Per cent.* |
| Haddock | 17.10 | 0.26 | 1.25 | 81.39 |
| Cod | 16.00 | .30 | 1.24 | 82.46 |

[2] Moore, H. F.: The Haddock: One of the Best Salt-water Fishes. With Recipes for Cooking It. Bureau of Fisheries Economic Circular No. 47, 8 p., issued Aug. 18, 1920. Washington.

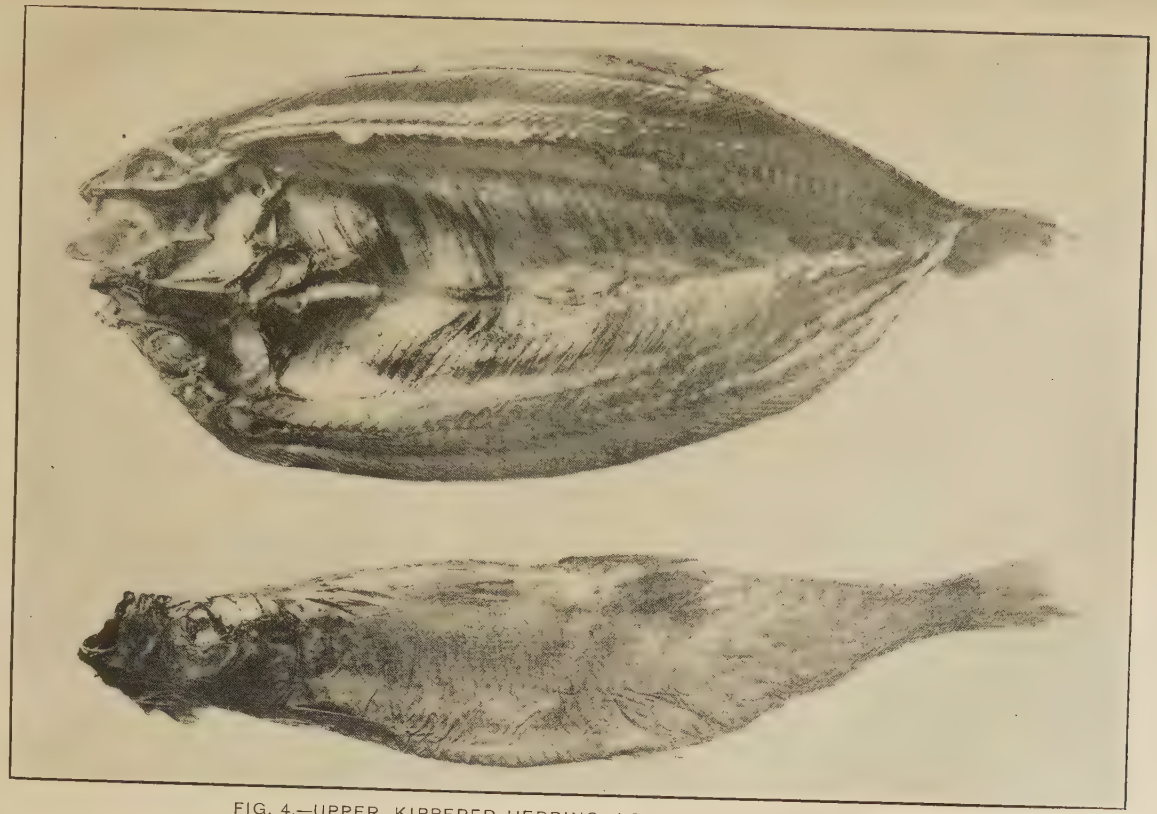


FIG. 4.—UPPER, KIPPERED HERRING; LOWER, BLOATER HERRING.

## FROZEN FISH.

Freezing conserves fish in times of abundance and cheapness for use in times of scarcity. As a rule fish are now frozen under excellent conditions, usually within a short time after they are caught. If perfectly fresh when frozen, if properly stored, handled, and prepared for the table, they are often superior in quality, texture, and flavor to fresh fish shipped long distances packed in ice. Some of the important species frozen are whiting, halibut, cod, hake, haddock, pollock, ciscoes, salmon, mackerel, sablefish, squeteague, smelts, whitefish, lake trout, butterfish, croakers, shad, and yellow pike.

As an aid to increasing the consumption of frozen fish and removing certain prejudices, the Bureau has issued a poster and leaflet recommending this commodity. The leaflet stresses the importance of keeping frozen fish at a low temperature until used for food and of never thawing and refreezing or subjecting them to rises in temperature or bruising, and emphasizes the necessity of buying them frozen and placing them in an ice box or cool place for thawing before cooking. For statistics of the holdings of frozen fish by species and by months in 1920, see page 52.

## TECHNOLOGICAL INVESTIGATIONS.

The small appropriation granted for the fiscal year beginning July 1, 1920, has made it impossible to conduct regular investigations in this field, limiting the work mainly to a review of literature of methods which will be helpful in future investigations and to certain minor activities which could be done at little expense. Appreciating the importance of the technological investigations in progress at the experimental plant at San Pedro to the fisheries of the Pacific coast, the California Fish and Game Commission has taken over the laboratory and is operating it for the current fiscal year.

### SALTING RIVER HERRING.

The technological investigations of the basic principles governing the salting of fish which have been described in previous reports have revealed the possibilities of effecting certain refinements and improvements in common practice, of salting fish at higher temperatures and therefore in warm climates and of producing a product superior to much of that now marketed. In order to give practical application to the results, arrangements were made to initiate the salting of fish at points in Florida where previous attempts by usual methods had failed. A practical salter of long experience was employed, given instructions and opportunity to try out these improvements in the Bureau's Fishery Products Laboratory, and detailed to Welaka, Fla., for instructing local fishermen desirous of giving such methods a trial.

At Welaka the run of river herring lasts from about January 1 to March 15. During the early part of the season the catch is marketed without difficulty, but later when the fish appear at more northern points the demand diminishes and the price falls to a point at which it is unprofitable to continue fishing. The possibility of salting the fish taken at this period was welcomed by the local fishermen.

The instructions given resulted in the successful salting of 80,000 fish, and purchasers of the fish expressed a high appreciation of the quality of the product. Plans were developed for establishing local markets for the fish and for conducting the work on a large commercial scale.

A paper[3] by the Bureau's technologist, H. F. Taylor, has been published by the Bureau for the use of fish salters, and it points out the practical application of the principles developed by work in this field. These include the careful handling of fish before salting; thorough cleaning, especially the removal of all blood; the use of salt of a high degree of purity; and the application of salt in the dry condition.

### REFRIGERATION OF FISH.

To supply authoritative technical data bearing on the refrigeration of fish, the relative merits of freezing fish in air and in brine and the like, the Bureau has assembled necessary equipment including electrical measuring apparatus. Lack of funds and the loss of technological workers have prevented the prosecution of this investigation. The demand for the Bureau's data on refrigeration, particularly freezing in brine by the various processes, has been heavy and it is believed has been highly appreciated by the trade. Practical application of the principles in the precooling and freezing of fish have been made and give promise of effecting important advances in the distribution of fish of excellent quality. The possibilities of precooling the catch as taken by the fishing vessels merit serious consideration. A number of demonstrations of brine freezing have been made by the Bureau during the year. As a result of demonstrations given for the benefit of representatives of the Bureau of Plant Industry, that bureau has made provision for the application of this method to the freezing of fruits and vegetables and is conducting investigations in its particular field.

### CANNING OF PACIFIC COAST FISHES.

When the Bureau equipped its small experimental canning laboratory in southern California, one of the more pressing lines of investigation was the development of satisfactory methods of canning little utilized fishes to render available larger quantities of protein food and conserve meat. As a result much attention was given to the possibilities of developing suitable methods for canning such fishes as mackerel, bonito, barracuda, sea bass, and smelts and to improving the packs of pilchard, tuna, and yellowtail. Several hundred packs were put up and held in storage for examination periodically, and in a few cases methods which appeared unusually promising and for which there was an immediate demand have been released. The results of this work are being prepared for publication. With the lessening of the demand for greatly increasing production and in view of the underconsumption of fish and difficulties of marketing not only new fishes, but staple varieties, in recent months the laboratory has concerned intself with the more important work of developing standard methods

[3] Taylor, Harden F.: Improvements in Process of Salting River Herring, Especially Adapted to Warm Climates. Appendix II, Report, U. S. Commissioner of Fisheries for 1921, 7 p., B. F. Doc. 903. Washington, 1921.

of canning the usual species which will yield standard packs and to the solution of the practical problems of the canners. For example, it is making a careful investigation of the possibilities of recovering the fry bath oil and of keeping it free from the objectionable substances acquired by continued use. This problem is much more complex than was anticipated when the work was undertaken and, if it can be solved, it will be of marked value to the industry.

### PRESERVATION OF FISH NETS.

Most of the investigations in the preservation of nets have been made in Norway, very little investigation or experimentation being noted in the fishery or scientific journals in other countries. This important means of economizing in the expense of nets appears to have been largely neglected in the United States, the principal preservative used being tar, which can be used only for the coarser kinds of nets. As the fishing gear employed by our fishermen represents an investment in excess of 15 million dollars, a large part of which is in twine, and in view of the increased cost of such netting, the importance of lengthening the life of such gear will be appreciated. To contribute to this end, a paper on the subject has been prepared,[4] reviewing the literature of the subject, presenting the fundamental principles so far as they are known, and giving for use those recipes which, from a chemical standpoint, seem best calculated to serve their purpose. In addition provision is being made for the conduct of additional tests for the purpose of affording still further aid to our fishermen.

## INCREASING THE USE OF BY-PRODUCTS OF FISHERIES.

Although the Bureau's activities in this field during the year were practically confined to suggestions through correspondence or by personal visits, the results achieved have been exceedingly gratifying and important progress is to be noted in the saving of fish waste, the manufacture of fish meal, the production of fish leather, and the utilization of fish scales. The decline in value of fish oil and scrap to prewar levels will undoubtedly affect operations in 1921.

### FISH OILS.

By converting the figures published by the Bureau of the Census in Animal and Vegetable Fats and Oils for calendar years 1919 and 1920, on the basis of 7½ pounds to the gallon, the production of fish oils in gallons in 1920 was as follows: Menhaden oil, 3,676,453; whale oil, 3,073,574; sperm oil, 416,737; herring oil, 380,379; cod and cod-liver oil, 196,108; and all other, including marine animals, 1,060,322; a total of 8,803,574. On the basis of reports from the Pacific Coast States and Alaska, the production of fish oils in 1920 approximated 3,066,000 gallons.

Imports of fish oils entered for consumption for the calendar year 1919 amounted to 2,599,072 gallons, valued at $2,928,993. This

[4] Taylor, Harden F.: Preservation of Fish Nets. Appendix IV, Report, U. S. Commissioner of Fisheries for 1920, 35 p., 1 fig., B. F. Doc. 898. Washington, 1921.

amount includes cod oil, 1,152,252 gallons, valued at $1,107,221; cod-liver oil, 235,805 gallons, valued at $665,080; herring and other fish oils, 542,112 gallons, valued at $437,836; seal oil, 23,121 gallons, valued at $21,598; sperm oil, 124,747 gallons, valued at $124,511; and other whale oil, 521,035 gallons, valued at $572,747. The exports of fish oils in 1919 amounted to 1,085,551 gallons, valued at $976,831. Of this amount 526,980 gallons, valued at $401,466 went to England; 409,122 gallons, valued at $353,221 to Scotland; and 59,722 gallons, valued at $70,309 to Canada.

### FISH SCRAP AND MEAL.

The estimated production of fish and whale scrap and meal in 1920 was 130,000 tons, a material increase over previous years. Of this amount, 16,898 [5] tons are credited to the Pacific Coast States and Alaska. On the west coast, as a result of the heavy demand for fertilizer material, more than the usual amount of scrap was used for this purpose. In the menhaden industry of the Atlantic coast, the value of the Bureau's assistance in encouraging the production of fish meal has been greatly appreciated. At least 5,000 tons of meal was turned out by the producers in 1920 and considerable quantities of unground scrap are reported as sold to manufacturers interested in supplying stock feeds. The Bureau of Animal Industry of the Department of Agriculture has continued its hog-feeding tests, using various fish meals, and samples have been supplied to some 15 State experiment stations with satisfactory results. The experiments in progress include the feeding of meal of high oil content, samples without removal of natural oil with additional oil added, and meal made from decomposed fish. If these tests yield satisfactory results, the producers of fish meal should be reasonably assured of markets for their product as soon as the farmers have become acquainted with the merits of this commodity. The whaling companies have recently expressed an interest in the manufacture of whale meal and have provided material for a feeding test.

Considerable quantities of fish waste and waste fish incident to the New England fisheries remain unutilized, and in some cases its disposal is an item of no little expense to the producer. Lack of a regular supply makes the operation of the larger reduction plants impracticable, and the smaller plants appear to be not wholly satisfactory for the proper reduction of some of the raw materials in greatest abundance. The Bureau appreciates the need of solving the problems of this field and hopes to be in position to take them up in the near future.

### FISH LEATHER.

Notwithstanding the increase in the usual supplies of materials for tanning into leather, the possibilities of employing the hides of sharks and other unutilized aquatic animals continues to attract attention, and the number of inquiries for detailed information is large. Several companies are interested in developing the industry and in the establishment of fisheries for these forms. The Bureau of

[5] See Pacific Fisherman Yearbook, January, 1921, p. 105-106.

Standards is continuing its investigations of the characteristics and qualities of these leathers. One sample of shark leather possessed a tensile strength in excess of 6,500 pounds per square inch exceeding that of calfskin tested. Wearing tests of shoes are also being made. For this purpose 14 pairs of shoes, one shoe of each pair of shark leather and its mate of calfskin; seven pairs of shoes, one of porpoise and mate of side leather; and two pairs of shoes, one shoe of whale leather and mate of calfskin, are being used. It is assured that leather of good quality can be made from shark hides, and ready markets thus far have been found for good grades. There is need for more attention to the subject of quantity-production, to the trial of small, easily movable reduction plants to care for the oil, scrap, and fins, and to developing the interest of fishermen to save and utilize their catch of sharks. A report is being prepared covering the investigations in this field.

### SHARK FINS.

There is an apparent demand for a much larger supply of dried shark fins. San Francisco is the center of the industry in the United States, the receipts at that port amounting to about 5 tons per month. Much the larger portion is imported from the west coast of Mexico, the balance being received from California points and a few shipments from the Atlantic coast. The Chinese merchants are the largest buyers and export the bulk of the material to China, the balance being absorbed by the local trade.

Unlike conditions in the principal oriental markets, very little distinction as to the species of sharks from which the fins are taken is made, provided the fins are of good size, properly trimmed and cured. The fin should be cut off at the body, with all fleshy parts trimmed off, leaving only the true fin. The marketable fins are the dorsal on the back, the pectorals or anterior paired fins, and the anal. The large dorsal is preferred, while the caudal or tail is worthless. The fins must be at least 6 inches long, and those ranging from 8 to 14 inches are preferred.

For curing the fins should be thoroughly dried in the sun without salt or other treatment, then packed, preferably in cases or barrels weighing about 250 pounds, or put up in sacks to weigh 150 or 200 pounds. Choice grades have commanded as high as 65 to 75 cents per pound, but fins badly cured, improperly trimmed, etc., command much less.

### PEARL ESSENCE OR FISH SCALE ESSENCE.

The art of using the silvery pigment from fish scales for ornamental purposes is said to have been discovered by the Chinese. In 1680 artificial pearls were first made in western Europe by Jacquin, a rosary maker in Paris, and the trade has been largely conducted in France, Germany, and Italy. The silvery coating of the scales of certain fishes, freed from organic matter and composed of minute, oblong bodies which en masse under suitable conditions supply an iridescent effect, is employed for the purpose. This material is known as essence d'orient, pearl essence, or fish-scale essence. In the manufacture of the artificial pearls the inner wall of the thin

glass spheres is coated with this essence and the cavity filled with a hard white wax.

In the past the best scales for the purpose were obtained from one of the cyprinid fishes of Europe. The supply of pearl essence was curtailed by the outbreak of the Great War, and in 1915 and 1916 numerous inquiries were received by the Bureau concerning the fishes from whose scales the essence could be prepared and details of manufacture of the essence and of artificial pearls. Such information as could be found was supplied, and some experiments were made with the scales of native fishes. Promising samples, although never free from color, were made from the scales of the alewife, or river herring. After treating the scales with ammonia the lustrous particles were separated out by centrifugation. Samples submitted to American representatives of Parisian pearl manufacturers were pronounced off color and lacking in luster. Later one of the Bureau's technologists made some additional experiments, including the digestion of the proteinaceous material, leaving the lustrous particles and a pearly suspension produced, but the results were not wholly satisfactory. At about this time others had succeeded in making pearl essence from the scales of native fishes and the experiments were discontinued for more important investigations. According to report the scales of the alewife, or river herring, sea herring, and shad are employed. The scales are agitated in an ammonia solution and the lustrous particles separated by straining the liquid through several cloths. The material produced is reported to be fully the equal of the imported essence for the manufacture of artificial pearls. The fishermen receive from 15 to 50 cents per pound for the scales, and considerable quantities are now being used for the purpose.

## NEW ENGLAND VESSEL FISHERIES.

### GENERAL STATISTICS.

In the vessel fisheries centering at Boston and Gloucester, Mass., and Portland, Me., during the past year the number of trips and the catch were not so large as in the previous year, but there was a considerable increase in the total value of the products. There was a large increase in the products landed at Boston during the year, amounting to 14.67 per cent in quantity and 30.19 per cent in value, while at Gloucester there was a decrease of 34.51 per cent in quantity and 31.93 per cent in value, and at Portland a decrease of 40.22 per cent in quantity and 8.60 per cent in value. Statistics of these fisheries have been collected by the local agents and published in monthly bulletins showing by species and fishing grounds the quantities and values of fishery products landed by American and Canadian fishing vessels during the year at these ports. Two annual bulletins have been issued, one showing the catch by months and the other by fishing grounds.

The fishing fleet at these ports during the calendar year 1920 numbered 471 sail, steam, and gasoline screw vessels, including 41 American and 3 Canadian steam trawlers. These vessels landed at Boston 3,342 trips, aggregating 118,558,902 pounds of fish, valued at $6,136,569; at Gloucester, 2,381 trips, aggregating 46,740,296 pounds, valued at $1,460,336; and at Portland, 1,883 trips, aggre-

gating 12,981,503 pounds, valued at $630,108. The total for the three ports amounted to 7,606 trips, aggregating 178,280,701 pounds of fresh and salted fish, having a value to the fishermen of $8,227,013. This total includes 54 trips, 43 at Boston, 1 at Gloucester, and 10 at Portland, landed by 18 Canadian fishing vessels, amounting to 2,588,218 pounds of fish, valued at $119,028. Of this quantity, 1,308,774 pounds, valued at $62,147, were landed at Boston; 271,580 pounds, valued at $13,606, at Gloucester; and 1,007,864 pounds, valued at $43,275, at Portland. There was an increase of 9 vessels and 15 trips, but a decrease of 707,929 pounds in the quantity of fish landed, with an increase of $12,767 in the value, as compared with the previous year. These fish were landed in accordance with an arrangement with the Canadian Government as an emergency war measure granting reciprocal privileges to fishing vessels, by which Canadian fishing vessels were permitted to land their fares at American ports direct from the fishing grounds. Canadian vessels began to utilize this privilege in April, 1918, and the arrangement is still in operation.

Compared with the previous year there was a decrease of 663 trips, or 8.01 per cent, in the total number landed by the fishing fleet at Boston, Gloucester, and Portland, and of 18,200,569 pounds, or 9.26 per cent, in the quantity, with an increase of $678,630, or 8.99 per cent, in the value of the products landed. The only important species showing an increase in both quantity and value were halibut, mackerel, and swordfish. The catch of halibut increased 1,674,669 pounds, or 79.19 per cent, in quantity, and $354,630, or 91.59 per cent, in value; the mackerel catch increased 1,580,525 pounds, or 27.66 per cent, in quantity, and $215,852, or 39.44 per cent, in value; and the catch of swordfish increased 1,648,942 pounds, or 186.80 per cent, in quantity, and $281,834, or 132.71 per cent, in value. The catch of cod decreased 3,108,838 pounds, or 4.75 per cent, in quantity, but increased $54,456, or 2.10 per cent, in value; haddock decreased 7,436,708 pounds, or 8.99 per cent, in quantity, and $53,886, or 1.92 per cent, in value; pollock, 10,191,066 pounds, or 54.34 per cent, in quantity, and $118,387, or 31.11 per cent, in value; cusk, 208,459 pounds, or 10.10 per cent, in quantity, and $14,099, or 22.67 per cent, in value; and herring, 3,361,901 pounds, or 32.45 per cent, in quantity, and $73,487, or 30.64 per cent, in value. The catch of hake increased 381,880 pounds, or 8.80 per cent, in quantity, but decreased $27,177, or 15.01 per cent, in value. The catch of Newfoundland herring decreased 404,753 pounds, or 11.55 per cent, in quantity, and $79,626, or 41.95 per cent, in value. There were no tilefish landed at Boston during the year. In the various other species combined there was an increase of 853,897 pounds, or 20.66 per cent, in quantity, and of $60,368, or 37.85 per cent, in value.

The following tables present in detail, by fishing grounds and by months, the products landed at Boston and Gloucester, Mass., and Portland, Me., by American and Canadian fishing vessels, for the calendar year 1920. The weights of fresh and salted fish given in these statistics represent the fish as landed from the vessels, and the values are those received by the fishermen. The grades, or sizes, given for certain species are those recognized in the trade.

STATEMENT, BY FISHING GROUNDS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, CALENDAR YEAR 1920.

| Fishing grounds. | Number of trips. | Cod. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Large (10 pounds and over). | | | | Market (under 10 and over 2½ pounds). | | | | Scrod (1 to 2½ pounds). | | | |
| | | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| LANDED AT BOSTON. | | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | | |
| By American vessels: | | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| La Have Bank | 54 | 767,285 | $51,941 | | | 615,401 | $23,382 | | | 25,720 | $360 | | |
| Western Bank | 85 | 1,101,050 | 61,002 | | | 456,395 | 18,094 | | | 3,375 | 80 | | |
| Quereau Bank | 9 | 43,840 | 1,628 | | | 6,300 | 212 | | | | | | |
| Green Bank | 3 | | | | | | | | | | | | |
| Grand Bank | 9 | 38,900 | 2,123 | | | 4,200 | 126 | | | | | | |
| St. Peters Bank | 4 | 3,100 | 186 | | | | | | | | | | |
| Burgeo Bank | 2 | | | | | | | | | | | | |
| Cape North | 1 | 16,950 | 1,526 | | | 35,600 | 952 | | | 5,500 | 110 | | |
| Cape Shore | 38 | 67,100 | 4,589 | | | 54,045 | 1,968 | | | 6,060 | 96 | | |
| Roseway Bank | 1 | 5,000 | 260 | | | 5,800 | 174 | | | | | | |
| By Canadian vessels: La Have Bank | 3 | 28,520 | 1,730 | | | 30,500 | 1,052 | | | 1,450 | 15 | | |
| *West of 66° W. longitude.* | | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | | |
| Browns Bank | 104 | 1,527,829 | 92,713 | | | 1,344,270 | 45,915 | | | 23,850 | 445 | | |
| Georges Bank | 807 | 10,054,075 | 618,606 | | | 4,775,817 | 172,304 | | | 21,825 | 361 | | |
| Cashes Bank | 3 | 14,855 | 932 | | | 5,000 | 201 | | | | | | |
| Fippenies Bank | 4 | 32,940 | 3,279 | | | 21,205 | 1,133 | | | 6,910 | 138 | | |
| Middle Bank | 58 | 106,257 | 11,399 | | | 74,220 | 4,533 | | | 27,585 | 447 | | |
| Jeffreys Ledge | 59 | 60,598 | 4,867 | | | 48,885 | 2,345 | | | 13,950 | 219 | | |
| South Channel | 560 | 2,582,571 | 166,365 | | | 2,241,185 | 75,734 | | | 46,780 | 765 | | |
| Nantucket Shoals | 121 | 120,365 | 7,113 | | | 259,695 | 8,532 | | | 2,110 | 39 | | |
| Off Chatham | 221 | 1,328,904 | 81,414 | | | 1,121,769 | 37,209 | | | 66,955 | 1,067 | | |
| South | 9 | | | | | | | | | | | | |
| Shore, general | 1,147 | 775,106 | 47,740 | | | 342,155 | 14,693 | | | 7,540 | 135 | | |
| By Canadian vessels: | | | | | | | | | | | | | |
| Browns Bank | 25 | 225,992 | 12,049 | | | 410,902 | 10,352 | | | 7,405 | 102 | | |
| Georges Bank | 15 | 102,855 | 6,351 | | | 154,355 | 4,354 | | | 1,700 | 16 | | |
| Total | 3,342 | 19,004,092 | 1,177,813 | | | 12,007,699 | 423,265 | | | 268,715 | 4,395 | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LANDED AT GLOUCESTER.** | | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | | |
| La Have Bank | 20 | 401,440 | 11,628 | 36,183 | $2,071 | 181,565 | 4,407 | 2,970 | $154 | 1,155 | 11 | | |
| Western Bank | 89 | 4,126,450 | 124,026 | 287,663 | 17,443 | 2,967,020 | 73,428 | 306,126 | 17,173 | 51,910 | 587 | 14,480 | $605 |
| Quereau Bank | 73 | 3,710,340 | 105,672 | 801,232 | 44,130 | 4,091,229 | 93,400 | 1,182,225 | 58,741 | 14,870 | 173 | 76,632 | 2,786 |
| Green Bank | 5 | 83,435 | 2,410 | 59,805 | 3,275 | 12,660 | 295 | 6,610 | 331 | | | | |
| Grand Bank | 25 | 470,567 | 14,246 | 355,695 | 21,088 | 56,560 | 1,447 | 75,120 | 4,105 | 2,430 | 69 | 3,215 | 121 |
| St. Peters Bank | 5 | 265,390 | 7,962 | 4,955 | 297 | 86,035 | 2,151 | 760 | 42 | 1,085 | 41 | | |
| Off Newfoundland | 12 | | | | | | | | | | | | |
| Cape Shore | 22 | 95,850 | 2,975 | | | 41,000 | 1,043 | | | 350 | 5 | | |
| The Gully | 5 | 19,215 | 714 | 12,260 | 710 | 2,050 | 83 | 1,255 | 63 | | | | |
| By Canadian vessels: Quereau Bank | 1 | | | 113,065 | 5,653 | | | 149,330 | 7,466 | | | 8,785 | 439 |
| *West of 66° W. longitude.* | | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | | |
| Browns Bank | 16 | 248,975 | 7,633 | | | 319,115 | 8,194 | | | 6,470 | 93 | | |
| Georges Bank | 180 | 2,245,228 | 67,332 | 46,619 | 2,509 | 2,112,540 | 53,690 | 78,761 | 3,888 | 24,736 | 299 | 1,820 | 53 |
| Jeffreys Ledge | 1 | 6,000 | 165 | | | 7,660 | 172 | | | | | | |
| Ipswich Bay | 1 | | | | | | | | | | | | |
| South Channel | 38 | 136,170 | 4,065 | | | 456,033 | 11,382 | | | 27,398 | 363 | | |
| Nantucket Shoals | 49 | 865 | 28 | | | 3,115 | 83 | | | | | | |
| Seal Island | 4 | 80,850 | 2,396 | 21,300 | 1,169 | 37,820 | 1,005 | 8,960 | 467 | | | | |
| Shore, general | 1,835 | 2,195,290 | 100,951 | 595 | 36 | 35,050 | 863 | | | 3,470 | 51 | | |
| Total | 2,381 | 14,086,065 | 452,203 | 1,739,372 | 98,381 | 10,409,452 | 251,643 | 1,812,117 | 92,430 | 133,874 | 1,692 | 104,932 | 4,004 |
| **LANDED AT PORTLAND.** | | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | | |
| La Have Bank | 5 | 17,715 | 522 | | | 7,475 | 151 | | | 270 | 3 | | |
| Western Bank | 6 | 8,965 | 348 | 1,460 | 95 | 3,790 | 127 | 315 | 20 | | | | |
| Quereau Bank | 3 | | | | | | | | | | | | |
| Green Bank | 2 | 900 | 50 | | | | | | | | | | |
| Grand Bank | 11 | 26,565 | 771 | 4,320 | 270 | 3,700 | 102 | | | | | | |
| St. Peters Bank | 6 | 615 | 31 | | | | | | | | | | |
| Off Newfoundland | 1 | | | | | | | | | | | | |
| Cape Shore | 11 | 21,825 | 821 | | | 31,140 | 922 | | | 1,710 | 31 | | |
| The Gully | 4 | | | | | | | | | | | | |
| By Canadian vessels: | | | | | | | | | | | | | |
| La Have Bank | 2 | 56,540 | 1,930 | 2,085 | 156 | 20,060 | 502 | 575 | 37 | | | 370 | 17 |
| Western Bank | 3 | 50,000 | 1,000 | 62,218 | 3,532 | | | 98,046 | 5,393 | | | 24,500 | 1,348 |

STATEMENT, BY FISHING GROUNDS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, CALENDAR YEAR 1920—Continued.

| Fishing grounds. | Number of trips. | Cod. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Large (10 pounds and over). | | | | Market (under 10 and over 2½ pounds). | | | | Scrod (1 to 2½ pounds). | | | |
| | | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| LANDED AT PORTLAND—continued. | | | | | | | | | | | | | |
| *West of 66° W. longitude.* | | | | | | | | | | | | | |
| By American vessels: | | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Browns Bank | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Georges Bank | 17 | 31,300 | $2,504 | ..... | ..... | 2,785 | $223 | ..... | ..... | ..... | ..... | ..... | ..... |
| Cashes Bank | 13 | 53,556 | 2,458 | ..... | ..... | 11,167 | 326 | ..... | ..... | 605 | $8 | ..... | ..... |
| Platts Bank | 46 | 101,916 | 6,695 | ..... | ..... | 51,815 | 2,304 | ..... | ..... | 26,227 | 267 | ..... | ..... |
| Jeffreys Ledge | 57 | 41,674 | 3,117 | ..... | ..... | 34,280 | 1,683 | ..... | ..... | 10,825 | 152 | ..... | ..... |
| South Channel | 2 | 510 | 20 | ..... | ..... | 649 | 16 | ..... | ..... | ..... | ..... | ..... | ..... |
| Shore, general | 1,688 | 1,344,769 | 75,592 | 6,135 | $434 | 417,870 | 15,716 | 1,375 | $82 | 116,052 | 2,017 | 595 | $18 |
| By Canadian vessels: Georges Bank | 5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total | 1,883 | 1,756,850 | 95,859 | 76,218 | 4,487 | 584,731 | 22,072 | 100,311 | 5,532 | 155,689 | 2,478 | 25,465 | 1,383 |
| Grand total | 7,606 | 34,847,007 | 1,725,875 | 1,815,590 | 102,868 | 23,001,882 | 696,980 | 1,912,428 | 97,962 | 558,278 | 8,565 | 130,397 | 5,387 |

| Fishing grounds. | Haddock. | | | | | | Hake. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Large (over 2½ pounds). | | | | Scrod (1 to 2½ pounds). | | Large (6 pounds and over). | | | | Small (under 6 pounds). | | | |
| | Fresh. | | Salted. | | Fresh. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| LANDED AT BOSTON. | | | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | | | |
| By American vessels: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| La Have Bank | 756,030 | $36,377 | ..... | ..... | ..... | ..... | 10,700 | $623 | ..... | ..... | 34,395 | $1,362 | ..... | ..... |
| Western Bank | 1,540,445 | 66,615 | ..... | ..... | ..... | ..... | 1,585 | 108 | ..... | ..... | 10,100 | 474 | ..... | ..... |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quereau Bank | 300 | 5 | | | | | | | | | | | | |
| Grand Bank | | | | | | | 7,700 | 194 | | | | | | |
| St. Peters Bank | 700 | 42 | | | | | 12,000 | 440 | | | 3,235 | 82 | | |
| Cape North | 8,000 | 480 | | | | | | | | | | | | |
| Cape Shore | 113,700 | 4,092 | | | | | 730 | 22 | | | 3,350 | 133 | | |
| Roseway Bank | 1,650 | 132 | | | | | | | | | 300 | 12 | | |
| By Canadian vessels: La Have Bank | 46,410 | 2,174 | | | | | | | | | | | | |
| *West of 66° W. longitude.* | | | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | | | |
| Browns Bank | 1,055,260 | 42,689 | | | | | 20,540 | 1,015 | | | 12,250 | 442 | | |
| Georges Bank | 20,809,185 | 850,624 | | | 3,550 | $132 | 19,160 | 802 | | | 30,065 | 968 | | |
| Cashes Bank | | | | | | | 1,640 | 98 | | | 13,160 | 446 | | |
| Fippenies Bank | 4,555 | 312 | | | | | 12,080 | 763 | | | 28,735 | 1,194 | | |
| Middle Bank | 324,925 | 20,252 | | | | | 26,915 | 2,115 | | | 158,790 | 7,014 | | |
| Jeffreys Ledge | 287,463 | 18,813 | | | 1,170 | 32 | 43,985 | 1,964 | | | 138,908 | 6,226 | | |
| South Channel | 34,748,683 | 1,231,340 | | | 22,210 | 515 | 459,870 | 15,666 | | | 1,103,845 | 33,993 | | |
| Nantucket Shoals | 1,177,669 | 46,299 | | | 875 | 26 | 675 | 27 | | | 3,365 | 110 | | |
| Off Chatham | 3,159,665 | 127,203 | | | 2,875 | 48 | 132,125 | 5,373 | | | 259,716 | 9,011 | | |
| Shore, general | 586,133 | 25,555 | | | 770 | 19 | 64,745 | 2,365 | | | 133,740 | 4,058 | | |
| By Canadian vessels: | | | | | | | | | | | | | | |
| Browns Bank | 44,415 | 1,451 | | | | | | | | | 1,000 | 20 | | |
| Georges Bank | 55,250 | 1,601 | | | | | | | | | | | | |
| Total | 64,720,438 | 2,476,056 | | | 31,450 | 772 | 814,450 | 31,575 | | | 1,934,954 | 65,575 | | |
| LANDED AT GLOUCESTER. | | | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | | | |
| La Have Bank | 111,570 | 1,139 | | | | | 82,465 | 1,236 | 2,805 | $72 | | | | |
| Western Bank | 1,115,205 | 16,118 | | | 29,187 | 368 | 119,530 | 1,794 | 3,492 | 94 | | | | |
| Quereau Bank | 394,120 | 5,005 | 18,550 | $557 | | | 16,095 | 244 | 7,365 | 178 | | | | |
| Green Bank | 240 | 4 | | | | | 10,470 | 157 | 3,680 | 99 | | | | |
| Grand Bank | 1,836 | 27 | 9,750 | 297 | | | 63,885 | 958 | 19,710 | 567 | | | 455 | $9 |
| St. Peters Bank | 11,920 | 178 | | | | | 24,120 | 487 | | | | | | |
| Cape Shore | 15,850 | 198 | | | | | | | | | | | | |
| The Gully | | | | | | | 1,565 | 22 | 7,930 | 194 | | | | |
| *West of 66° W. longitude.* | | | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | | | |
| Browns Bank | 129,500 | 1,508 | | | | | 19,710 | 295 | | | | | | |
| Georges Bank | 2,505,070 | 38,681 | | | 6,840 | 51 | 45,635 | 680 | | | | | | |
| Jeffreys Ledge | 19,200 | 192 | | | | | 440 | 7 | | | | | | |
| South Channel | 2,224,225 | 26,985 | | | 110,100 | 1,377 | 31,800 | 465 | | | | | | |
| Nantucket Shoals | 45,000 | 675 | | | 47,035 | 588 | | | | | | | | |
| Seal Island | | | | | | | 28,400 | 426 | 6,200 | 117 | | | | |
| Shore, general | 1,798,495 | 85,381 | | | | | 306,125 | 16,138 | | | | | | |
| Total | 8,372,231 | 176,091 | 28,300 | 854 | 193,162 | 2,384 | 750,240 | 22,909 | 51,182 | 1,321 | | | 455 | 9 |

STATEMENT, BY FISHING GROUNDS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, CALENDAR YEAR 1920—Continued.

| Fishing grounds. | Haddock. | | | | | | Hake. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Large (over 2½ pounds). | | | | Scrod (1 to 2½ pounds). | | Large (6 pounds and over). | | | | Small (under 6 pounds). | | | |
| | Fresh. | | Salted. | | Fresh. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| LANDED AT PORTLAND. | | | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | | | |
| By American vessels: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| La Have Bank | 23,125 | $534 | | | | | | | | | 1,790 | $31 | | |
| Western Bank | | | | | | | | | | | 515 | 17 | | |
| Green Bank | | | | | | | | | | | 470 | 6 | | |
| Grand Bank | 390 | 6 | | | | | 10,190 | $153 | 1,940 | $49 | | | | |
| St. Peters Bank | | | | | | | 255 | 10 | | | 90 | 4 | | |
| Off Newfoundland | | | | | | | 2,000 | 30 | | | | | | |
| Cape Shore | 28,260 | 1,324 | | | 4,320 | $65 | 230 | 14 | | | 3,720 | 111 | | |
| The Gully | | | | | | | | | | | 1,000 | 35 | | |
| By Canadian vessels: | | | | | | | | | | | | | | |
| La Have Bank | 605 | 12 | | | | | 2,000 | 42 | | | 5,295 | 79 | 1,375 | $45 |
| Western Bank | 454,500 | 9,090 | 16,143 | $184 | | | | | | | | | | |
| *West of 66° W. longitude.* | | | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | | | |
| Georges Bank | 131,640 | 3,748 | | | | | | | | | | | | |
| Cashes Bank | 555 | 18 | | | | | 2,765 | 153 | | | 36,261 | 859 | | |
| Platts Bank | 25,757 | 2,030 | | | 508 | 11 | 29,931 | 1,001 | | | 232,315 | 5,375 | | |
| Jeffreys Ledge | 255,895 | 19,423 | | | 12,622 | 417 | 12,402 | 778 | | | 196,987 | 5,841 | | |
| South Channel | 394,568 | 9,861 | | | | | | | | | | | | |
| Shore, general | 575,651 | 36,592 | | | 9,357 | 280 | 58,839 | 2,471 | | | 569,423 | 14,873 | 282 | 10 |
| Total | 1,890,946 | 82,638 | 16,143 | 484 | 26,807 | 773 | 118,612 | 4,652 | 1,940 | 49 | 1,047,866 | 27,731 | 1,657 | 55 |
| Grand total | 74,983,615 | 2,734,785 | 44,443 | 1,338 | 251,419 | 3,929 | 1,683,302 | 59,136 | 53,122 | 1,370 | 2,982,820 | 93,306 | 2,112 | 64 |

| Fishing grounds. | Pollock. | | | | Cusk. | | | | Halibut. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| LANDED AT BOSTON. | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | |
| La Have Bank | 39,695 | $1,394 | | | 79,745 | $2,351 | | | 83,766 | $19,229 | | |
| Western Bank | 89,240 | 4,131 | | | 6,035 | 271 | | | 213,958 | 40,500 | | |
| Quereau Bank | 870 | 20 | | | 880 | 22 | | | 218,389 | 42,551 | | |
| Green Bank | | | | | | | | | 96,701 | 19,773 | | |
| Grand Bank | | | | | 600 | 18 | | | 271,785 | 50,431 | | |
| St. Peters Bank | | | | | | | | | 108,163 | 19,906 | | |
| Burgeo Bank | 28,000 | 5,600 | | | | | | | 43,357 | 8,486 | | |
| Cape Shore | 6,800 | 137 | | | 3,430 | 59 | | | 41,979 | 4,163 | 5,000 | $450 |
| Roseway Bank | | | | | 1,000 | 20 | | | 249 | 63 | | |
| By Canadian vessels: La Have Bank | 555 | 16 | | | 2,500 | 50 | | | 1,327 | 463 | | |
| *West of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | |
| Browns Bank | 108,515 | 4,275 | | | 133,105 | 4,257 | | | 115,871 | 26,617 | | |
| Georges Bank | 692,874 | 24,375 | | | 91,790 | 2,996 | | | 1,101,946 | 220,320 | | |
| Cashes Bank | 4,240 | 167 | | | 6,408 | 176 | | | 1,185 | 329 | | |
| Fippenies Bank | 8,365 | 246 | | | 27,780 | 480 | | | 34 | 10 | | |
| Middle Bank | 89,090 | 3,154 | | | 67,925 | 1,522 | | | 3,193 | 981 | | |
| Jeffreys Ledge | 76,320 | 2,621 | | | 75,750 | 2,340 | | | 2,519 | 676 | | |
| South Channel | 622,825 | 24,139 | | | 133,987 | 2,969 | | | 120,507 | 27,785 | | |
| Nantucket Shoals | 19,127 | 642 | | | 385 | 15 | | | 4,513 | 1,140 | | |
| Off Chatham | 239,084 | 9,209 | | | 58,820 | 2,005 | | | 36,153 | 8,760 | | |
| Shore, general | 1,260,529 | 40,821 | | | 38,000 | 1,104 | | | 31,630 | 3,568 | 7,000 | 700 |
| By Canadian vessels: | | | | | | | | | | | | |
| Browns Bank | 38,060 | 1,018 | | | 14,687 | 421 | | | 2,017 | 566 | | |
| Georges Bank | 12,885 | 456 | | | 2,800 | 34 | | | 1,290 | 298 | | |
| Total | 3,337,074 | 122,421 | | | 745,627 | 21,110 | | | 2,500,532 | 496,615 | 12,000 | 1,150 |
| LANDED AT GLOUCESTER. | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | |
| La Have Bank | 12,120 | 141 | 780 | $20 | 166,515 | 2,709 | 1,256 | $46 | 30,843 | 6,189 | 70 | 7 |
| Western Bank | 147,785 | 2,002 | 560 | 16 | 174,020 | 3,389 | | | 52,758 | 9,707 | 75 | 9 |
| Quereau Bank | 89,010 | 1,195 | 12,725 | 366 | 28,380 | 601 | 220 | 8 | 8,291 | 1,424 | 4,715 | 605 |
| Green Bank | 50 | 1 | | | 4,595 | 89 | 1,640 | 58 | | | 2,596 | 389 |
| Grand Bank | 1,085 | 14 | 2,005 | 60 | 18,705 | 386 | 1,055 | 37 | | | 1,880 | 177 |
| St. Peters Bank | | | | | 22,565 | 370 | 70 | 2 | | | | |
| Cape Shore | 600 | 8 | | | | | | | | | | |
| The Gully | | | 120 | 3 | 520 | 8 | 185 | 6 | | | | |
| By Canadian vessels: Quereau Bank | | | | | | | | | | | 400 | 48 |

STATEMENT, BY FISHING GROUNDS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, CALENDAR YEAR 1920—Continued.

| Fishing grounds. | Pollock. | | | | Cusk. | | | | Halibut. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| LANDED AT GLOUCESTER—continued. | | | | | | | | | | | | |
| *West of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Browns Bank | 10,505 | $137 | | | 36,250 | $718 | | | | | | |
| Georges Bank | 114,669 | 2,023 | | | 99,381 | 1,940 | 242 | $6 | 14,485 | $2,112 | | |
| Jeffreys Ledge | 3,110 | 39 | | | | | | | | | | |
| South Channel | 48,555 | 634 | | | 10,530 | 186 | | | 90 | 14 | | |
| Nantucket Shoals | 9,340 | 126 | | | | | | | | | | |
| Seal Island | 1,710 | 20 | 590 | $15 | 26,915 | 680 | 685 | 67 | | | | |
| Shore, general | 3,745,246 | 112,252 | | | 9,854 | 195 | | | 622 | 152 | | |
| Total | 4,183,785 | 118,592 | 16,780 | 480 | 598,230 | 11,271 | 5,353 | 230 | 107,089 | 19,598 | 9,736 | $1,235 |
| LANDED AT PORTLAND. | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | |
| La Have Bank | 1,065 | 11 | | | 3,560 | 105 | | | 60,722 | 12,402 | | |
| Western Bank | | | | | 125 | 4 | | | 157,827 | 29,256 | | |
| Quereau Bank | | | | | | | | | 104,485 | 23,095 | | |
| Green Bank | | | | | | | | | 68,093 | 11,683 | | |
| Grand Bank | | | | | 600 | 14 | | | 286,651 | 51,886 | | |
| St. Peters Bank | | | | | | | | | 162,339 | 33,929 | | |
| Off Newfoundland | | | | | 2,000 | 50 | | | 11,225 | 2,070 | | |
| Cape Shore | 340 | 5 | | | 10,320 | 176 | | | 497 | 100 | | |
| The Gully | | | | | | | | | 83,504 | 17,731 | | |
| By Canadian vessels: | | | | | | | | | | | | |
| La Have Bank | 760 | 9 | 2,370 | 77 | 42,155 | 633 | | | 40,131 | 6,200 | | |
| Western Bank | 53,975 | 1,406 | | | | | | | 576 | 128 | | |
| *West of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | |
| Georges Bank | | | | | | | | | 39,488 | 7,446 | | |
| Cashes Bank | 3,383 | 88 | | | 23,099 | 630 | | | 6,846 | 1,418 | | |
| Platts Bank | 30,855 | 843 | | | 121,405 | 2,858 | | | 1,776 | 360 | | |
| Jeffreys Ledge | 13,467 | 419 | | | 77,380 | 2,393 | | | 1,629 | 317 | | |
| South Channel | 955 | 20 | | | | | | | | | | |
| Shore, general | 913,207 | 17,671 | 2,885 | 86 | 221,625 | 8,588 | 260 | 8 | 134,184 | 25,202 | | |
| Total | 1,018,007 | 20,472 | 5,255 | 163 | 505,269 | 15,451 | 260 | 8 | 1,159,973 | 223,223 | | |
| Grand total | 8,538,866 | 261,485 | 22,635 | 643 | 1,849,126 | 47,832 | 5,613 | 238 | 3,767,594 | 739,435 | 21,736 | 2,385 |

| Fishing grounds. | Mackerel. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Large (over 2¼ pounds). | | | | Medium (1½ to 2¼ pounds). | | | | Small (under 1½ pounds). | | | |
| | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| LANDED AT BOSTON. | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: Cape Shore | 1,149,153 | $113,532 | 180,200 | $15,454 | ..... | ..... | 20,000 | $1,800 | ..... | ..... | ..... | ..... |
| *West of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | |
| Georges Bank | 67,148 | 15,474 | ..... | ..... | 23,975 | $3,403 | ..... | ..... | 1,947 | $496 | ..... | ..... |
| Middle Bank | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 5,960 | 1,529 | ..... | ..... |
| South Channel | 38,675 | 4,254 | ..... | ..... | 37,075 | 3,988 | ..... | ..... | 3,500 | 385 | ..... | ..... |
| Nantucket Shoals | 1,117,220 | 93,037 | 27,400 | 2,331 | 633,315 | 67,329 | 1,800 | 189 | 63,030 | 8,832 | ..... | ..... |
| Off Chatham | 787 | 246 | ..... | ..... | 128,646 | 24,808 | ..... | ..... | 158,864 | 30,315 | ..... | ..... |
| South | 384,630 | 32,222 | 9,000 | 630 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Shore, general | 1,686,882 | 172,701 | 5,700 | 477 | 401,676 | 48,448 | 1,000 | 70 | 106,437 | 18,545 | ..... | ..... |
| Total | 4,444,495 | 431,466 | 222,300 | 18,892 | 1,224,687 | 147,976 | 22,800 | 2,059 | 339,738 | 60,102 | ..... | ..... |
| LANDED AT GLOUCESTER. | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: Cape Shore | 16,550 | 790 | 461,687 | 39,428 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *West of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | |
| Georges Bank | ..... | ..... | 333 | 50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Nantucket Shoals | 11,881 | 1,339 | 231,884 | 23,997 | 55,145 | 3,991 | 66,988 | 7,081 | ..... | ..... | 1,200 | $102 |
| Shore, general | 66,709 | 11,409 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total | 95,140 | 13,538 | 693,904 | 63,475 | 55,145 | 3,991 | 66,988 | 7,081 | ..... | ..... | 1,200 | 102 |
| LANDED AT PORTLAND. | | | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: Cape Shore | 73,625 | 6,392 | 2,000 | 175 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *West of 66° W. longitude.* | | | | | | | | | | | | |
| By American vessels: | | | | | | | | | | | | |
| Georges Bank | 13,322 | 2,689 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Shore, general | 13,542 | 1,768 | ..... | ..... | 23,750 | 3,319 | ..... | ..... | 1,085 | 69 | ..... | ..... |
| Total | 100,489 | 10,849 | 2,000 | 175 | 23,750 | 3,319 | ..... | ..... | 1,085 | 69 | ..... | ..... |
| Grand total | 4,640,124 | 455,853 | 918,204 | 82,542 | 1,303,582 | 155,286 | 89,788 | 9,140 | 340,823 | 60,171 | 1,200 | 102 |

STATEMENT, BY FISHING GROUNDS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, CALENDAR YEAR 1920—Continued.

| Fishing grounds. | Miscellaneous. | | | | Total. | | | | Grand total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Fresh. | | Salted. | | Fresh. | | Salted. | | | |
| LANDED AT BOSTON. | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | |
| By American vessels: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| La Have Bank | 7,919 | $736 | | | 2,420,656 | $137,755 | | | 2,420,656 | $137,755 |
| Western Bank | 10,297 | 1,158 | | | 3,432,480 | 192,433 | | | 3,432,480 | 192,433 |
| Quereau Bank | 328 | 85 | | | 270,907 | 44,523 | | | 270,907 | 44,523 |
| Green Bank | 250 | 100 | | | 96,951 | 19,873 | | | 96,951 | 19,873 |
| Grand Bank | 120 | 30 | | | 323,305 | 52,922 | | | 323,305 | 52,922 |
| St. Peters Bank | | | | | 127,198 | 20,656 | | | 127,198 | 20,656 |
| Burgeo Bank | | | | | 71,357 | 14,086 | | | 71,357 | 14,086 |
| Cape North | | | | | 66,050 | 3,068 | | | 66,050 | 3,068 |
| Cape Shore | 11,818 | 1,930 | | | 1,458,165 | 130,771 | 205,200 | $17,704 | 1,663,365 | 148,475 |
| Roseway Bank | | | | | 13,999 | 661 | | | 13,999 | 661 |
| By Canadian vessels: La Have Bank | | | | | 111,262 | 5,500 | | | 111,262 | 5,500 |
| *West of 66° W. longitude.* | | | | | | | | | | |
| By American vessels: | | | | | | | | | | |
| Browns Bank | 103,227 | 5,029 | | | 4,444,717 | 223,397 | | | 4,444,717 | 223,397 |
| Georges Bank | 2,419,339 | 431,268 | | | 40,112,696 | 2,342,129 | | | 40,112,696 | 2,342,129 |
| Cashes Bank | | | | | 46,488 | 2,349 | | | 46,488 | 2,349 |
| Fippenies Bank | 200 | 8 | | | 142,804 | 7,563 | | | 142,804 | 7,563 |
| Middle Bank | 39,893 | 2,709 | | | 924,753 | 55,655 | | | 924,753 | 55,655 |
| Jeffreys Ledge | 14,802 | 810 | | | 764,350 | 40,913 | | | 764,350 | 40,913 |
| South Channel | 881,360 | 47,580 | | | 43,043,073 | 1,635,478 | | | 43,043,073 | 1,635,478 |
| Nantucket Shoals | 65,632 | 5,098 | | | 3,467,976 | 238,269 | 29,200 | 2,520 | 3,497,176 | 240,789 |
| Off Chatham | 235,264 | 13,034 | | | 6,929,627 | 349,702 | | | 6,929,627 | 349,702 |
| South | | | | | 384,630 | 32,222 | 9,000 | 630 | 393,630 | 32,852 |
| Shore, general | 3,015,503 | 128,144 | | | 8,450,846 | 507,896 | 13,700 | 1,247 | 8,464,546 | 509,143 |
| By Canadian vessels: | | | | | | | | | | |
| Browns Bank | 31,814 | 3,305 | | | 776,292 | 29,284 | | | 776,292 | 29,284 |
| Georges Bank | 90,085 | 14,253 | | | 421,220 | 27,363 | | | 421,220 | 27,363 |
| Total | 6,927,851 | 655,327 | | | 118,301,802 | 6,114,468 | 257,100 | 22,101 | 118,558,902 | 6,136,569 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **LANDED AT GLOUCESTER.** | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | |
| By American vessels: | | | | | | | | | | |
| La Have Bank | | | | | 987,673 | 27,460 | 44,064 | 2,370 | 1,031,737 | 29,830 |
| Western Bank | | | | | 8,783,865 | 231,419 | 612,396 | 35,340 | 9,396,261 | 266,759 |
| Quereau Bank | | | | | 8,352,335 | 207,714 | 2,103,664 | 107,371 | 10,455,999 | 315,085 |
| Green Bank | | | | | 111,450 | 2,956 | 74,331 | 4,152 | 185,781 | 7,108 |
| Grand Bank | | | | | 615,068 | 17,147 | 468,885 | 26,461 | 1,083,953 | 43,608 |
| St. Peters Bank | | | | | 411,115 | 11,189 | 5,785 | 341 | 416,900 | 11,530 |
| Off Newfoundland | | | [1] 3,097,024 | $110,157 | | | 3,097,024 | 110,157 | 3,097,024 | 110,157 |
| Cape Shore | | | | | 170,200 | 5,019 | 461,687 | 39,428 | 631,887 | 44,447 |
| The Gully | | | | | 23,350 | 827 | 21,750 | 976 | 45,100 | 1,803 |
| By Canadian vessels: Quereau Bank | | | | | | | 271,580 | 13,606 | 271,580 | 13,606 |
| *West of 66° W. longitude.* | | | | | | | | | | |
| By American vessels: | | | | | | | | | | |
| Browns Bank | | | | | 770,525 | 18,578 | | | 770,525 | 18,578 |
| Georges Bank | 3,924 | 754 | | | 7,172,508 | 167,562 | 127,775 | 6,506 | 7,300,283 | 174,068 |
| Jeffreys Ledge | | | | | 36,410 | 575 | | | 36,410 | 575 |
| Ipswich Bay | 26,600 | 466 | | | 26,600 | 466 | | | 26,600 | 466 |
| South Channel | | | | | 3,044,901 | 45,471 | | | 3,044,901 | 45,471 |
| Nantucket Shoals | | | | | 172,381 | 6,830 | 300,072 | 31,180 | 472,453 | 38,010 |
| Seal Island | | | | | 175,695 | 4,527 | 37,735 | 1,835 | 213,430 | 6,362 |
| Shore, general | 98,016 | 5,445 | | | 8,258,877 | 332,837 | 595 | 36 | 8,259,472 | 332,873 |
| Total | 128,540 | 6,665 | 3,097,024 | 110,157 | 3,9112,953 | 1,080,577 | 7,627,343 | 379,759 | 46,740,296 | 1,460,336 |
| **LANDED AT PORTLAND.** | | | | | | | | | | |
| *East of 66° W. longitude.* | | | | | | | | | | |
| By American vessels: | | | | | | | | | | |
| La Have Bank | 300 | 75 | | | 116,022 | 13,834 | | | 116,022 | 13,834 |
| Western Bank | | | | | 171,222 | 29,752 | 1,775 | 115 | 172,997 | 29,867 |
| Quereau Bank | 310 | 78 | | | 104,795 | 23,173 | | | 104,795 | 23,173 |
| Green Bank | | | | | 69,463 | 11,739 | | | 69,463 | 11,739 |
| Grand Bank | | | | | 328,096 | 52,932 | 6,260 | 319 | 334,356 | 53,251 |
| St. Peters Bank | 451 | 75 | | | 163,750 | 34,049 | | | 163,750 | 34,049 |
| Off Newfoundland | | | | | 15,225 | 2,150 | | | 15,225 | 2,150 |
| Cape Shore | 40,584 | 8,860 | | | 216,571 | 18,821 | 2,000 | 175 | 218,571 | 18,996 |
| The Gully | | | | | 84,504 | 17,766 | | | 84,504 | 17,766 |
| By Canadian vessels: | | | | | | | | | | |
| La Have Bank | | | | | 167,546 | 9,407 | 6,775 | 332 | 174,321 | 9,739 |
| Western Bank | | | | | 559,051 | 11,624 | 200,907 | 10,757 | 759,958 | 22,381 |

[1] Herring. Other items under "Miscellaneous" include bluebacks, 31,650 pounds, value $530; butterfish, 13,087 pounds, value $2,561; flounders, 3,637,774 pounds, value $166,895; herring, 3,900,960 pounds, value $56,144; rosefish, 67,613 pounds, value $2,030; shad, 115,792 pounds, value $6,322; sharks, 15,262 pounds, value $405; skates, 4,425 pounds, value $98; smelt, 10,940 pounds, value $1,216; sturgeon, 3,301 pounds, value $630; swordfish, 2,531,669 pounds, value $494,202; tuna, 12,001 pounds, value $944; whiting, 800 pounds, value $4; wolffish, 170,729 pounds, value $4,926; squid, 1,980 pounds, value $36; lobster, 100 pounds, value $33; livers, 772,329 pounds, value $24,715; sounds, 6,383 pounds, value, $320; and spawn, 121,776 pounds, value $8,167.

STATEMENT, BY FISHING GROUNDS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, CALENDAR YEAR 1920—Continued.

| Fishing grounds. | Miscellaneous. | | | | Total. | | | | Grand total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Fresh. | | Salted. | | Fresh. | | Salted. | | | |
| LANDED AT PORTLAND—continued. | | | | | | | | | | |
| *West of 66° W. longitude.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| By American vessels: | | | | | | | | | | |
| Browns Bank | 10,466 | $2,198 | | | 10,466 | $2,198 | | | 10,466 | $2,198 |
| Georges Bank | 122,235 | 22,273 | | | 340,770 | 38,883 | | | 340,770 | 38,883 |
| Cashes Bank | 350 | 8 | | | 138,587 | 5,966 | | | 138,587 | 5,966 |
| Platts Bank | 10,713 | 232 | | | 633,218 | 22,476 | | | 633,218 | 22,476 |
| Jeffreys Ledge | 21,137 | 804 | | | 678,298 | 35,344 | | | 678,298 | 35,344 |
| South Channel | 265 | 13 | | | 396,947 | 9,930 | | | 396,947 | 9,930 |
| Shore, general | 4,081,784 | 62,415 | | | 8,484,138 | 266,573 | 11,532 | $638 | 8,495,670 | 267,211 |
| By Canadian vessels: Georges Bank | 73,585 | 11,155 | | | 73,585 | 11,155 | | | 73,585 | 11,155 |
| Total | 4,362,180 | 108,186 | | | 12,752,254 | 617,772 | 229,249 | 12,336 | 12,981,503 | 630,108 |
| Grand total | 11,418,571 | 770,178 | 3,097,024 | 110,157 | 170,167,009 | 7,812,817 | 8,113,692 | 414,196 | 178,280,701 | 8,227,013 |

STATEMENT, BY MONTHS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, 1920.[1]

| Month. | Number of trips. | Cod. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Large (10 pounds and over). | | | | Market (under 10 and over 2½ pounds). | | | | Scrod (1 to 2½ pounds). | | | |
| | | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| LANDED AT BOSTON. | | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| January | 209 | 947,700 | $88,987 | | | 716,380 | $37,070 | | | 40,355 | $901 | | |
| February | 195 | 2,075,600 | 164,798 | | | 547,332 | 29,240 | | | 6,895 | 170 | | |
| March | 315 | 3,333,703 | 182,451 | | | 906,045 | 36,193 | | | 5,485 | 127 | | |
| April | 214 | 1,353,829 | 69,357 | | | 617,078 | 21,289 | | | 16,090 | 267 | | |
| May | 254 | 1,565,234 | 71,246 | | | 1,030,387 | 33,451 | | | 24,885 | 368 | | |
| June | 271 | 1,570,580 | 89,377 | | | 1,299,085 | 41,024 | | | 8,760 | 126 | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July | 314 | 1,363,398 | 79,121 | | | 1,371,48 | 39,663 | | | 5,020 | 63 | | |
| August | 355 | 1,746,450 | 90,245 | | | 1,593,327 | 40,710 | | | 4,480 | 45 | | |
| September | 344 | 1,548,565 | 92,425 | | | 1,136,314 | 38,364 | | | 19,180 | 264 | | |
| October | 289 | 1,582,428 | 92,570 | | | 1,061,248 | 33,569 | | | 11,505 | 123 | | |
| November | 329 | 1,147,438 | 94,290 | | | 989,522 | 40,537 | | | 51,530 | 702 | | |
| December | 253 | 769,167 | 62,946 | | | 739,495 | 32,155 | | | 74,530 | 1,239 | | |
| Total | 3,342 | 19,004,092 | 1,177,813 | | | 12,007,699 | 423,265 | | | 268,715 | 4,395 | | |
| LANDED AT GLOUCESTER. | | | | | | | | | | | | | |
| January | 194 | 206,935 | 13,722 | 1,000 | $60 | 18,645 | 492 | 540 | $27 | 3,205 | 46 | | |
| February | 112 | 154,300 | 10,712 | | | 8,125 | 259 | | | 85 | 2 | | |
| March | 332 | 1,085,210 | 41,214 | | | 142,200 | 3,445 | | | 845 | 8 | | |
| April | 452 | 2,375,320 | 80,192 | 4,110 | 247 | 655,775 | 17,124 | 600 | 30 | 5,180 | 58 | | |
| May | 286 | 2,739,765 | 83,620 | 17,625 | 1,065 | 1,845,590 | 46,792 | 8,325 | 458 | 19,130 | 286 | 399 | $12 |
| June | 99 | 2,294,832 | 69,458 | 327,443 | 19,839 | 2,178,833 | 53,186 | 308,206 | 17,290 | 51,868 | 610 | 14,245 | 598 |
| July | 90 | 2,218,950 | 66,066 | 365,010 | 21,833 | 2,233,894 | 54,064 | 137,770 | 7,394 | 10,895 | 126 | 4,305 | 164 |
| August | 73 | 1,583,575 | 41,318 | 156,852 | 8,460 | 1,918,220 | 42,310 | 133,885 | 6,531 | 20,241 | 250 | 955 | 32 |
| September | 83 | 514,483 | 15,362 | 302,264 | 16,512 | 693,131 | 17,213 | 446,501 | 20,919 | 8,830 | 110 | 17,282 | 509 |
| October | 211 | 494,915 | 14,250 | 377,975 | 20,494 | 418,825 | 9,675 | 570,575 | 29,359 | 7,705 | 133 | 48,970 | 1,875 |
| November | 221 | 188,285 | 6,632 | 179,788 | 9,469 | 182,525 | 4,434 | 205,075 | 10,390 | 3,175 | 35 | 18,785 | 814 |
| December | 228 | 229,495 | 9,657 | 7,305 | 402 | 113,689 | 2,649 | 640 | 32 | 2,715 | 28 | | |
| Total | 2,381 | 14,086,065 | 452,203 | 1,739,372 | 98,381 | 10,409,452 | 251,643 | 1,812,117 | 92,430 | 133,874 | 1,692 | 104,932 | 4,004 |
| LANDED AT PORTLAND. | | | | | | | | | | | | | |
| January | 90 | 48,271 | 4,564 | | | 53,181 | 2,997 | | | 18,132 | 439 | | |
| February | 59 | 64,735 | 5,059 | | | 21,917 | 1,632 | | | 4,899 | 170 | | |
| March | 172 | 104,225 | 6,253 | 1,460 | 95 | 58,903 | 2,530 | 315 | 20 | 7,696 | 192 | | |
| April | 234 | 243,170 | 10,287 | 4,405 | 275 | 127,173 | 3,685 | | | 7,484 | 111 | | |
| May | 234 | 193,011 | 8,550 | | | 57,208 | 1,587 | | | 5,378 | 73 | | |
| June | 377 | 225,766 | 12,246 | 50 | 3 | 27,632 | 887 | 45 | 2 | 3,829 | 54 | | |
| July | 154 | 262,688 | 15,011 | 1,345 | 101 | 43,816 | 1,184 | 330 | 21 | 1,668 | 23 | | |
| August | 133 | 254,424 | 11,366 | 2,085 | 156 | 21,801 | 691 | 575 | 37 | 3,877 | 42 | 370 | 17 |
| September | 113 | 108,584 | 5,868 | 66,873 | 3,857 | 38,284 | 1,285 | 98,996 | 5,449 | 12,701 | 445 | 25,055 | 1,365 |
| October | 130 | 128,667 | 6,209 | | | 38,975 | 1,195 | 50 | 3 | 11,166 | 116 | 40 | 1 |
| November | 110 | 64,811 | 5,323 | | | 37,529 | 1,848 | | | 19,178 | 202 | | |
| December | 77 | 58,498 | 5,123 | | | 58,312 | 2,551 | | | 59,681 | 611 | | |
| Total | 1,883 | 1,756,850 | 95,859 | 76,218 | 4,487 | 584,731 | 22,072 | 100,311 | 5,532 | 155,689 | 2,478 | 25,465 | 1,383 |
| Grand total | 7,606 | 34,847,007 | 1,725,875 | 1,815,590 | 102,868 | 23,001,882 | 696,980 | 1,912,428 | 97,962 | 558,278 | 8,565 | 130,397 | 5,387 |
| Grounds east of 66° W. long | 520 | 11,427,557 | 400,091 | 1,740,941 | 98,720 | 8,712,525 | 224,018 | 1,823,332 | 93,525 | 115,885 | 1,581 | 127,982 | 5,316 |
| Grounds west of 66° W. long | 7,086 | 23,419,450 | 1,325,784 | 74,649 | 4,148 | 14,289,357 | 472,962 | 89,096 | 4,437 | 442,393 | 6,984 | 2,415 | 71 |
| Landed at Boston in 1919 | 2,754 | 20,134,589 | 1,039,220 | | | 9,038,012 | 321,434 | | | 385,344 | 7,788 | | |
| Landed at Gloucester in 1919 | 2,965 | 18,508,512 | 567,307 | 3,065,779 | 171,873 | 8,616,805 | 229,526 | 1,562,770 | 74,811 | 137,801 | 2,202 | 94,502 | 4,077 |
| Landed at Portland in 1919 | 2,550 | 2,856,747 | 131,202 | | | 874,935 | 31,644 | 208 | 6 | 98,416 | 2,091 | | |

[1] The above statistics for the year 1920 include 54 trips landed by Canadian fishing vessels, 43 at Boston, 1 at Gloucester, and 10 at Portland, amounting to 2,588,218 pounds of fish, value $119,028.

STATEMENT, BY MONTHS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, 1920—Continued.

| Month. | Haddock. | | | | | | Hake. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Large (over 2½ pounds). | | | | Scrod (1 to 2½ pounds). | | Large (6 pounds and over). | | | | Small (under 6 pounds). | | | |
| | Fresh. | | Salted. | | Fresh. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| LANDED AT BOSTON. | | | | | | | | | | | | | | |
| January | 5,996,213 | $330,008 | | | 4,800 | $175 | 13,163 | $898 | | | 31,241 | $2,770 | | |
| February | 6,214,746 | 309,801 | | | | | 11,759 | 1,254 | | | 9,415 | 828 | | |
| March | 8,910,530 | 302,420 | | | 645 | 15 | 17,940 | 1,145 | | | 17,200 | 1,033 | | |
| April | 4,531,355 | 165,729 | | | 17,980 | 437 | 15,160 | 738 | | | 16,680 | 693 | | |
| May | 5,099,480 | 181,700 | | | 4,075 | 90 | 24,795 | 1,156 | | | 65,195 | 2,353 | | |
| June | 4,412,980 | 150,987 | | | 2,260 | 23 | 33,070 | 1,629 | | | 79,020 | 2,803 | | |
| July | 3,677,270 | 120,113 | | | 290 | 6 | 30,880 | 1,114 | | | 220,315 | 5,282 | | |
| August | 4,658,175 | 121,035 | | | 100 | 2 | 93,845 | 3,046 | | | 290,554 | 7,914 | | |
| September | 5,780,368 | 144,946 | | | | | 59,370 | 2,600 | | | 269,255 | 11,070 | | |
| October | 6,067,915 | 154,611 | | | | | 279,074 | 7,561 | | | 302,385 | 7,125 | | |
| November | 4,756,689 | 246,401 | | | | | 200,990 | 7,784 | | | 400,024 | 13,267 | | |
| December | 4,614,717 | 248,305 | | | 1,300 | 24 | 34,404 | 2,650 | | | 233,670 | 10,437 | | |
| Total | 64,720,438 | 2,476,056 | | | 31,450 | 772 | 814,450 | 31,575 | | | 1,934,954 | 65,575 | | |
| LANDED AT GLOUCESTER. | | | | | | | | | | | | | | |
| January | 80,275 | 4,318 | | | | | 24,290 | 1,344 | 100 | $3 | | | 455 | $9 |
| February | 235,675 | 14,056 | | | | | 10,085 | 1,026 | | | | | | |
| March | 1,331,725 | 35,737 | | | | | 15,785 | 1,159 | | | | | | |
| April | 1,470,680 | 49,157 | 890 | $32 | | | 17,820 | 1,059 | | | | | | |
| May | 944,050 | 19,230 | | | 166,515 | 2,082 | 48,890 | 795 | 2,052 | 51 | | | | |
| June | 1,159,150 | 16,873 | 50 | 1 | 19,807 | 251 | 27,990 | 420 | 30 | 1 | | | | |
| July | 348,631 | 4,957 | 18,740 | 562 | | | 76,775 | 1,276 | 2,570 | 67 | | | | |
| August | 839,590 | 9,150 | | | | | 138,800 | 2,081 | 1,440 | 43 | | | | |
| September | 1,381,910 | 13,801 | 4,185 | 126 | 6,840 | 51 | 88,475 | 1,869 | 10,235 | 233 | | | | |
| October | 491,095 | 4,844 | 3,290 | 99 | | | 88,990 | 1,558 | 22,135 | 611 | | | | |
| November | 26,895 | 747 | 1,145 | 34 | | | 64,265 | 2,125 | 8,160 | 200 | | | | |
| December | 62,555 | 3,221 | | | | | 148,075 | 8,197 | 4,460 | 112 | | | | |
| Total | 8,372,231 | 176,091 | 28,300 | 854 | 193,162 | 2,384 | 750,240 | 22,909 | 51,182 | 1,321 | | | 455 | 9 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANDED AT PORTLAND. | | | | | | | | | | | | | | |
| January | 102,880 | 8,385 | | | 2,967 | 111 | 2,109 | 134 | | | 12,916 | 716 | | |
| February | 137,535 | 11,467 | | | 6,165 | 260 | 2,273 | 238 | | | 24,427 | 1,755 | | |
| March | 158,860 | 11,536 | | | 5,515 | 164 | 7,748 | 615 | | | 75,713 | 3,956 | | |
| April | 268,253 | 13,091 | | | 6,474 | 100 | 14,090 | 726 | 1,940 | 49 | 147,360 | 4,633 | | |
| May | 181,099 | 6,088 | | | 1,871 | 46 | 20,781 | 553 | | | 167,171 | 3,677 | | |
| June | 15,234 | 1,167 | | | 456 | 10 | 8,419 | 245 | | | 63,458 | 1,365 | | |
| July | 4,046 | 281 | | | 96 | 6 | 16,996 | 496 | | | 67,888 | 1,255 | 282 | 10 |
| August | 852,479 | 19,119 | | | 265 | 7 | 6,582 | 173 | | | 36,179 | 624 | 1,375 | 45 |
| September | 6,611 | 330 | 16,143 | 484 | 485 | 11 | 2,211 | 79 | | | 16,242 | 458 | | |
| October | 19,710 | 849 | | | 785 | 15 | 23,770 | 484 | | | 157,109 | 2,669 | | |
| November | 57,331 | 4,051 | | | 1,385 | 35 | 8,366 | 471 | | | 188,161 | 3,589 | | |
| December | 86,908 | 6,274 | | | 343 | 8 | 5,267 | 408 | | | 91,242 | 3,034 | | |
| Total | 1,890,946 | 82,638 | 16,143 | 484 | 26,807 | 773 | 118,612 | 4,652 | 1,940 | 49 | 1,047,866 | 27,731 | 1,657 | 55 |
| Grand total | 74,983,615 | 2,734,785 | 44,443 | 1,338 | 251,419 | 3,929 | 1,683,302 | 59,136 | 53,122 | 1,370 | 2,982,820 | 93,306 | 2,112 | 64 |
| Grounds east of 66° W. long | 4,624,856 | 143,552 | 44,443 | 1,338 | 33,507 | 433 | 365,520 | 6,534 | 46,922 | 1,253 | 64,200 | 2,346 | 1,830 | 54 |
| Grounds west of 66° W. long | 70,358,759 | 2,591,233 | | | 217,912 | 3,496 | 1,317,782 | 52,602 | 6,200 | 117 | 2,918,560 | 90,960 | 282 | 10 |
| Landed at Boston in 1919 | 55,556,950 | 2,128,151 | | | 2,291,254 | 59,886 | 808,379 | 39,706 | | | 1,497,928 | 64,720 | | |
| Landed at Gloucester in 1919 | 17,150,377 | 396,149 | 155,162 | 6,240 | 538,421 | 6,718 | 746,097 | 24,130 | 39,070 | 1,269 | 500 | 8 | | |
| Landed at Portland in 1919 | 6,954,764 | 195,183 | | | 69,257 | 1,611 | 188,887 | 11,934 | | | 1,058,165 | 39,271 | 450 | 15 |

| Month. | Pollock. | | | | Cusk. | | | | Halibut. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| LANDED AT BOSTON. | | | | | | | | | | | | |
| January | 53,695 | $3,634 | | | 97,890 | $4,481 | | | 30,859 | $9,908 | | |
| February | 19,860 | 1,692 | | | 27,300 | 1,543 | | | 83,713 | 19,634 | | |
| March | 34,296 | 2,459 | | | 24,435 | 1,081 | | | 121,167 | 24,550 | | |
| April | 64,475 | 4,488 | | | 56,540 | 1,960 | | | 232,726 | 52,352 | | |
| May | 154,533 | 6,692 | | | 34,690 | 991 | | | 502,851 | 84,970 | | |
| June | 232,805 | 7,722 | | | 44,133 | 1,374 | | | 388,058 | 65,420 | 12,000 | $1,150 |
| July | 250,974 | 10,446 | | | 29,885 | 776 | | | 274,798 | 49,847 | | |
| August | 479,310 | 24,567 | | | 32,660 | 860 | | | 299,100 | 62,392 | | |
| September | 514,250 | 16,024 | | | 25,278 | 623 | | | 241,928 | 52,403 | | |
| October | 640,112 | 15,193 | | | 51,161 | 1,077 | | | 189,309 | 41,415 | | |
| November | 511,479 | 15,919 | | | 136,875 | 2,588 | | | 111,992 | 25,349 | | |
| December | 381,285 | 13,585 | | | 184,780 | 3,756 | | | 24,031 | 8,375 | | |
| Total | 3,337,074 | 122,421 | | | 745,627 | 21,110 | | | 2,500,532 | 496,615 | 12,000 | 1,150 |

STATEMENT, BY MONTHS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, 1920—Continued.

| Month. | Pollock. | | | | Cusk. | | | | Halibut. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| LANDED AT GLOUCESTER. | | | | | | | | | | | | |
| January | 373,154 | $23,327 | | | 4,905 | $123 | | | 622 | $152 | | |
| February | 37,780 | 3,649 | | | 895 | 23 | | | 23,370 | 4,173 | | |
| March | 46,090 | 3,401 | | | 1,525 | 35 | | | | | | |
| April | 66,065 | 3,971 | | | 10,100 | 205 | | | | | | |
| May | 78,030 | 1,754 | 200 | $$5 | 58,360 | 1,147 | | | 23,178 | 4,741 | 75 | $9 |
| June | 107,490 | 1,465 | 140 | 4 | 10,305 | 222 | | | 20,675 | 2,895 | 65 | 7 |
| July | 52,875 | 717 | 2,485 | 71 | 166,700 | 3,454 | 1,891 | $68 | | | 2,985 | 264 |
| August | 29,530 | 430 | 8,735 | 261 | 154,781 | 3,104 | 315 | 11 | 8,401 | 1,448 | | |
| September | 140,140 | 2,290 | 1,780 | 40 | 64,410 | 1,216 | 962 | 74 | | | 3,971 | 554 |
| October | 1,191,897 | 14,927 | 3,220 | 93 | 95,659 | 1,222 | 2,000 | 71 | | | 2,065 | 332 |
| November | 1,004,959 | 25,739 | 220 | 6 | 12,410 | 220 | 185 | 6 | 30,843 | 6,189 | 575 | 69 |
| December | 1,055,775 | 36,922 | | | 18,180 | 300 | | | | | | |
| Total | 4,183,785 | 118,592 | 16,780 | 480 | 598,230 | 11,271 | 5,353 | 230 | 107,089 | 19,598 | 9,736 | 1,235 |
| LANDED AT PORTLAND. | | | | | | | | | | | | |
| January | 3,077 | 161 | | | 19,566 | 1,333 | | | 33,149 | 7,194 | | |
| February | 3,123 | 229 | | | 12,937 | 998 | | | 53,998 | 10,710 | | |
| March | 8,697 | 526 | | | 50,200 | 2,665 | | | 84,218 | 15,989 | | |
| April | 22,159 | 1,123 | | | 93,281 | 2,334 | | | 105,674 | 24,230 | | |
| May | 86,502 | 2,879 | | | 71,690 | 1,579 | | | 155,961 | 25,209 | | |
| June | 429,008 | 5,659 | | | 13,202 | 458 | | | 117,021 | 18,597 | | |
| July | 31,659 | 609 | | | 39,971 | 1,046 | | | 136,547 | 25,092 | | |
| August | 38,034 | 775 | 2,370 | 77 | 28,507 | 645 | | | 91,639 | 18,788 | | |
| September | 166,525 | 4,149 | 2,770 | 83 | 8,383 | 366 | 260 | 8 | 101,163 | 21,506 | | |
| October | 126,955 | 2,099 | 115 | 3 | 51,243 | 1,132 | | | 122,120 | 22,654 | | |
| November | 68,459 | 1,293 | | | 73,277 | 1,660 | | | 153,455 | 32,230 | | |
| December | 33,809 | 970 | | | 43,012 | 1,235 | | | 5,028 | 1,024 | | |
| Total | 1,018,007 | 20,472 | 5,255 | 163 | 505,269 | 15,451 | 260 | 8 | 1,159,973 | 223,223 | | |
| Grand total | 8,538,866 | 261,485 | 22,035 | 643 | 1,849,126 | 47,832 | 5,613 | 238 | 3,767,594 | 739,436 | 21,736 | 2,385 |
| Grounds east of 66° W. long | 471,950 | 16,090 | 18,560 | 542 | 568,250 | 11,325 | 4,426 | 157 | 2,147,616 | 411,365 | 14,736 | 1,685 |
| Grounds west of 66° W. long | 8,066,916 | 245,395 | 3,475 | 101 | 1,280,876 | 36,507 | 1,187 | 81 | 1,619,978 | 328,071 | 7,000 | 700 |
| Landed at Boston in 1919 | 3,000,781 | 105,036 | | | 736,654 | 22,986 | | | 1,329,384 | 250,112 | 2,000 | 320 |
| Landed at Gloucester in 1919 | 14,598,786 | 248,205 | 55,101 | 1,400 | 608,957 | 13,373 | 37,962 | 1,658 | 357,460 | 54,820 | 12,600 | 1,770 |
| Landed at Portland in 1919 | 1,096,784 | 25,859 | 515 | 15 | 679,625 | 24,152 | | | 413,217 | 80,169 | | |

| Month. | Mackerel. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Large (over 2¼ pounds). | | | | Medium (1½ to 2¼ pounds). | | | | Small (under 1½ pounds). | | | |
| | Fresh. | | Salted. | | Fresh. | | Salted. | | Fresh. | | Salted. | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| LANDED AT BOSTON. | | | | | | | | | | | | |
| May | 1,311,600 | $119,557 | 9,000 | $630 | | | | | | | | |
| June | 2,323,096 | 203,205 | 197,700 | 16,934 | 310,350 | $23,247 | 21,000 | $1,870 | 24,190 | $1,283 | | |
| July | 514,385 | 50,756 | 15,600 | 1,328 | 625,860 | 71,202 | 1,800 | 189 | 64,130 | 10,410 | | |
| August | 32,244 | 7,173 | | | 119,827 | 21,626 | | | 65,857 | 12,028 | | |
| September | 42,235 | 11,214 | | | 56,600 | 11,747 | | | 179,601 | 34,852 | | |
| October | 36,465 | 6,915 | | | | | | | 5,960 | 1,529 | | |
| November | 178,290 | 30,920 | | | 108,260 | 19,109 | | | | | | |
| December | 6,180 | 1,726 | | | 3,790 | 1,045 | | | | | | |
| Total | 4,444,495 | 431,466 | 222,300 | 18,892 | 1,224,687 | 147,976 | 22,800 | 2,059 | 339,738 | 60,102 | | |
| LANDED AT GLOUCESTER. | | | | | | | | | | | | |
| June | 16,550 | 790 | 461,687 | 39,428 | | | | | | | | |
| July | 10,801 | 1,080 | 230,084 | 23,779 | 45,260 | 2,263 | 65,800 | 6,952 | | | 1,200 | $102 |
| August | | | 1,800 | 218 | 1,400 | 280 | 800 | 88 | | | | |
| September | | | | | 8,485 | 1,448 | 388 | 41 | | | | |
| October | 13,691 | 2,908 | 333 | 50 | | | | | | | | |
| November | 54,098 | 8,760 | | | | | | | | | | |
| Total | 95,140 | 13,538 | 693,904 | 63,475 | 55,145 | 3,991 | 66,988 | 7,081 | | | 1,200 | 102 |
| LANDED AT PORTLAND. | | | | | | | | | | | | |
| June | 82,259 | 7,249 | 2,000 | 175 | 3,515 | 400 | | | | | | |
| July | 12,146 | 2,045 | | | 1,466 | 183 | | | | | | |
| August | 1,707 | 419 | | | 1,417 | 116 | | | 410 | 6 | | |
| September | 3,542 | 940 | | | | | | | 125 | 8 | | |
| October | | | | | | | | | 550 | 55 | | |
| November | 835 | 196 | | | 17,352 | 2,620 | | | | | | |
| Total | 100,489 | 10,849 | 2,000 | 175 | 23,750 | 3,319 | | | 1,085 | 69 | | |
| Grand total | 4,640,124 | 455,853 | 918,204 | 82,542 | 1,303,582 | 155,286 | 89,788 | 9,140 | 340,823 | 60,171 | 1,200 | 102 |
| Grounds east of 66° W. long | 1,239,328 | 120,714 | 643,887 | 55,057 | | | 20,000 | 1,800 | | | | |
| Grounds west of 66° W. long | 3,400,796 | 335,139 | 274,317 | 27,485 | 1,303,582 | 155,286 | 69,788 | 7,340 | 340,823 | 60,171 | 1,200 | 102 |
| Landed at Boston in 1919 | 2,621,081 | 237,742 | 166,000 | 13,556 | 179,125 | 13,899 | | | 1,063,778 | 108,019 | 3,200 | 442 |
| Landed at Gloucester in 1919 | 221,129 | 34,211 | 1,183,959 | 102,223 | 1,035 | 98 | 6,400 | 950 | 21,898 | 838 | 34,288 | 2,538 |
| Landed at Portland in 1919 | 188,050 | 29,881 | 4,559 | 427 | 12,800 | 1,461 | | | 5,874 | 955 | 20 | 2 |

STATEMENT, BY MONTHS, OF QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS LANDED AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., BY AMERICAN AND CANADIAN FISHING VESSELS, 1920—Continued.

| Month. | Miscellaneous.[2] | | | | Total. | | | | Grand total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Fresh. | | Salted. | | Fresh. | | Salted. | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| LANDED AT BOSTON. | | | | | | | | | | |
| January | 299,732 | $17,499 | | | 8,232,028 | $496,331 | | | 8,232,028 | $496,331 |
| February | 377,747 | 21,069 | | | 9,374,367 | 550,029 | | | 9,374,367 | 550,029 |
| March | 578,038 | 30,369 | | | 13,949,484 | 581,843 | | | 13,949,484 | 581,843 |
| April | 462,526 | 17,546 | | | 7,384,439 | 334,856 | | | 7,384,439 | 334,856 |
| May | 365,681 | 9,892 | | | 10,183,406 | 512,466 | 9,000 | $630 | 10,192,406 | 513,096 |
| June | 259,563 | 14,997 | | | 10,987,950 | 603,217 | 230,700 | 19,954 | 11,218,650 | 623,171 |
| July | 1,115,278 | 174,053 | | | 9,543,969 | 612,852 | 17,400 | 1,517 | 9,561,369 | 614,369 |
| August | 1,345,219 | 202,010 | | | 10,761,148 | 593,653 | | | 10,761,148 | 593,653 |
| September | 756,457 | 101,593 | | | 10,629,401 | 518,125 | | | 10,629,401 | 518,125 |
| October | 475,278 | 18,999 | | | 10,702,840 | 380,687 | | | 10,702,840 | 380,687 |
| November | 366,873 | 17,705 | | | 8,959,962 | 514,571 | | | 8,959,962 | 514,571 |
| December | 525,459 | 29,595 | | | 7,592,808 | 415,838 | | | 7,592,808 | 415,838 |
| Total | 6,927,851 | 655,327 | | | 118,301,802 | 6,114,468 | 257,100 | 22,101 | 118,558,902 | 6,136,569 |
| LANDED AT GLOUCESTER. | | | | | | | | | | |
| January | 61,856 | 3,346 | 1,564,228 | $70,374 | 773,887 | 46,870 | 1,566,323 | 70,473 | 2,340,210 | 117,343 |
| February | 36,300 | 2,110 | | | 506,615 | 36,010 | | | 506,615 | 36,010 |
| March | | | | | 2,623,380 | 84,999 | | | 2,623,380 | 84,999 |
| April | | | | | 4,600,940 | 151,766 | 5,600 | 309 | 4,606,540 | 152,075 |
| May | | | | | 5,923,508 | 160,447 | 28,667 | 1,600 | 5,952,175 | 162,047 |
| June | | | | | 5,887,500 | 146,170 | 1,111,866 | 77,168 | 6,999,366 | 223,338 |
| July | | | | | 5,164,781 | 134,003 | 832,840 | 61,256 | 5,997,621 | 195,259 |
| August | 26,600 | 466 | | | 4,721,138 | 100,837 | 304,782 | 15,644 | 5,025,920 | 116,481 |
| September | 3,784 | 743 | | | 2,910,488 | 54,103 | 787,568 | 39,008 | 3,698,056 | 93,111 |
| October | | | | | 2,802,777 | 49,517 | 1,030,563 | 52,984 | 3,833,340 | 102,501 |
| November | | | | | 1,567,455 | 54,881 | 413,933 | 20,988 | 1,981,388 | 75,869 |
| December | | | 1,532,796 | 39,783 | 1,630,484 | 60,974 | 1,545,201 | 40,329 | 3,175,685 | 101,303 |
| Total | 128,540 | 6,665 | 3,097,024 | 110,157 | 39,112,953 | 1,080,577 | 7,627,343 | 379,759 | 46,740,296 | 1,460,336 |
| LANDED AT PORTLAND. | | | | | | | | | | |
| January | 10,033 | 378 | | | 306,281 | 26,442 | | | 306,281 | 26,442 |
| February | 16,089 | 668 | | | 348,098 | 33,186 | | | 348,098 | 33,186 |
| March | 18,041 | 599 | | | 579,816 | 45,025 | 1,775 | 115 | 581,591 | 45,140 |
| April | 14,678 | 408 | | | 1,049,796 | 60,728 | 6,345 | 324 | 1,056,141 | 61,052 |
| May | 329,163 | 5,034 | | | 1,269,835 | 55,275 | | | 1,269,835 | 55,275 |
| June | 3,132,993 | 47,778 | | | 1,122,792 | 96,115 | 2,095 | 180 | 4,124,887 | 96,295 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| July | 133,495 | 23,430 | ..... | ..... | 752,482 | 70,661 | 1,957 | 132 | 754,439 | 70,793 |
| August | 132,102 | 15,125 | ..... | ..... | 1,469,123 | 67,896 | 6,775 | 332 | 1,476,198 | 68,228 |
| September | 314,132 | 11,855 | ..... | ..... | 778,988 | 47,300 | 210,097 | 11,246 | 989,085 | 58,546 |
| October | 239,828 | 2,092 | ..... | ..... | 920,878 | 39,569 | 205 | 7 | 921,083 | 39,576 |
| November | 15,165 | 687 | ..... | ..... | 705,604 | 54,205 | ..... | ..... | 705,604 | 54,205 |
| December | 6,161 | 132 | ..... | ..... | 448,261 | 21,370 | ..... | ..... | 448,261 | 21,370 |
| Total | 4,362,180 | 108,186 | ..... | ..... | 12,752,254 | 617,772 | 229,249 | 12,336 | 12,981,503 | 630,108 |
| Grand total | 11,418,571 | 770,178 | 3,097,024 | 110,157 | 170,167,009 | 7,812,817 | 8,113,692 | 414,196 | 178,280,701 | 8,227,013 |
| Grounds east of 66° W. long | 72,377 | 13,177 | 3,097,024 | 110,157 | 29,843,631 | 1,351,226 | 7,581,083 | 369,604 | 37,427,714 | 1,720,830 |
| Grounds west of 66° W. long | 11,346,194 | 757,001 | ..... | ..... | 140,323,378 | 6,461,591 | 529,609 | 44,592 | 140,852,987 | 6,506,183 |
| Landed at Boston in 1919 | 4,565,511 | 300,048 | 11,400 | 285 | 103,208,770 | 4,698,747 | 182,600 | 14,603 | 103,391,370 | 4,713,350 |
| Landed at Gloucester in 1919 | 113,809 | 9,415 | 3,501,777 | 189,783 | 61,621,587 | 1,587,000 | 9,749,370 | 558,592 | 71,370,957 | 2,145,592 |
| Landed at Portland in 1919 | 7,215,670 | 113,563 | ..... | ..... | 21,713,191 | 688,976 | 5,752 | 465 | 21,718,943 | 689,441 |

[2] Includes herring from Newfoundland, 3,097,024 pounds salted, value $110,157.

The fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by fishing vessels each year are taken principally from fishing grounds lying off the coast of the United States. In the calendar year 1920, 78.88 per cent of the quantity and 79 per cent of the value of the catch landed by American and Canadian fishing vessels were taken from these grounds; 3.35 per cent of the quantity and 4.63 per cent of the value, consisting largely of herring, from fishing banks off the coast of Newfoundland, and 17.75 per cent of the quantity and 16.36 per cent of the value from fishing grounds off the Canadian Provinces. Newfoundland herring constituted 1.73 per cent of the quantity and 1.33 per cent of the value of the fishery products landed at these ports during the year. The herring were taken from the treaty coast of Newfoundland, and the cod, haddock, hake, halibut, and other species from that region were obtained from fishing banks on the high seas. All fish caught by American fishing vessels off the coast of the Canadian Provinces were from offshore fishing grounds. The catch from each of these regions is given in detail in the following table:

QUANTITY AND VALUE OF FISH LANDED BY AMERICAN AND CANADIAN FISHING VESSELS AT BOSTON AND GLOUCESTER, MASS., AND PORTLAND, ME., IN 1920, FROM FISHING GROUNDS OFF THE COAST OF THE UNITED STATES, NEWFOUNDLAND, AND CANADIAN PROVINCES.

| Species. | United States. | | Newfoundland. | | Canadian Provinces. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Cod: | | | | | | | | |
| Fresh | 38,032,530 | $1,802,329 | 1,056,142 | $32,010 | 19,318,495 | $597,081 | 58,407,167 | $2,431,420 |
| Salted | 135,900 | 7,020 | 510,480 | 29,529 | 3,212,035 | 169,668 | 3,858,415 | 206,217 |
| Haddock: | | | | | | | | |
| Fresh | 70,576,671 | 2,594,729 | 15,086 | 257 | 4,643,277 | 143,728 | 75,235,034 | 2,738,714 |
| Salted | ..... | ..... | 9,750 | 297 | 34,693 | 1,041 | 44,443 | 1,338 |
| Hake: | | | | | | | | |
| Fresh | 4,207,942 | 143,136 | 134,415 | 2,521 | 323,765 | 6,785 | 4,666,122 | 152,442 |
| Salted | 282 | 10 | 25,785 | 724 | 29,167 | 700 | 55,234 | 1,434 |
| Pollock: | | | | | | | | |
| Fresh | 8,065,206 | 245,375 | 29,135 | 5,615 | 444,525 | 10,495 | 8,538,866 | 261,485 |
| Salted | 2,885 | 86 | 2,005 | 60 | 17,145 | 497 | 22,035 | 643 |
| Cusk: | | | | | | | | |
| Fresh | 1,253,961 | 35,827 | 49,065 | 927 | 546,100 | 11,078 | 1,849,126 | 47,832 |
| Salted | 502 | 14 | 2,765 | 97 | 2,346 | 127 | 5,613 | 238 |
| Halibut: | | | | | | | | |
| Fresh | 1,619,978 | 328,071 | 1,048,314 | 198,164 | 1,099,302 | 213,201 | 3,767,594 | 739,436 |
| Salted | 7,000 | 700 | 4,476 | 566 | 10,260 | 1,119 | 21,736 | 2,385 |
| Mackerel: | | | | | | | | |
| Fresh | 5,045,201 | 550,596 | ..... | ..... | 1,239,328 | 120,714 | 6,284,529 | 671,310 |
| Salted | 345,305 | 34,927 | ..... | ..... | 663,887 | 56,857 | 1,009,192 | 91,784 |
| Herring: | | | | | | | | |
| Fresh | 3,900,960 | 56,144 | ..... | ..... | ..... | ..... | 3,900,960 | 56,144 |
| Salted | ..... | ..... | 3,097,024 | 110,157 | ..... | ..... | 3,097,024 | 110,157 |
| Swordfish: Fresh | 2,471,837 | 481,399 | 751 | 203 | 59,081 | 12,600 | 2,531,669 | 494,202 |
| Miscellaneous: Fresh | 4,973,397 | 219,458 | 70 | 2 | 12,475 | 372 | 4,985,942 | 219,832 |
| Total | 140,639,557 | 6,499,821 | 5,985,263 | 381,129 | 31,655,881 | 1,346,063 | 178,280,701 | 8,227,013 |

## SPECIES.

### COD.

In 1920 the fishing fleet landing fish at Boston, Gloucester, and Portland was not quite so large as in the previous year. There were 20 vessels in the salt-bank fishery, or 11 more than in the previous year, and 111 in the market fishery, the same number as in the previous year. These vessels landed their fares of cod and other

ground fish at these ports during the year, and large quantities of cod were also landed by vessels fishing on the shore grounds. The total catch of cod landed at these ports during the year was 62,265,582 pounds, valued at $2,637,637, of which 58,407,167 pounds, valued at $2,431,420, were fresh, and 3,858,415 pounds, valued at $206,217, were salted. Cod ranked second among the various species landed.

### HADDOCK.

The catch of haddock for the year ranked first in both quantity and value, exceeding that of cod by 13,013,895 pounds and $102,415. The quantity of haddock landed at these ports by fishing vessels during the year amounted to 75,279,477 pounds, valued at $2,740,052, all of which was fresh except 44,445 pounds, valued at $1,338. These fish were taken chiefly on Georges Bank and in South Channel, and the greater part of the catch, or 64,751,888 pounds, valued at $2,746,828, was landed at Boston.

### HAKE.

The catch of hake amounted to 4,721,356 pounds, valued at $153,876, all landed fresh except 55,234 pounds, valued at $1,434, salted. There was an increase of 381,880 pounds, or 8.80 per cent, in the quantity, but a decrease of $27,177, or 15.01 per cent, in the value as compared with the previous year. The yield of this species has been comparatively small in recent years.

### POLLOCK.

The catch of pollock amounted to 8,560,901 pounds, valued at $262,128, all landed fresh except 22,035 pounds, valued at $643, salted. This was the smallest catch of pollock in many years. There was a falling off in the catch of this species of over 10,000,000 pounds as compared with the previous year.

### CUSK.

The catch of cusk amounted to 1,854,739 pounds, valued at $48,070, all of which was fresh, except 5,613 pounds, valued at $238, salted. The yield was 200,000 pounds less than in the previous year. The catch of this species has declined considerably in recent years.

### HALIBUT.

The quantity of halibut landed was 3,789,330 pounds, valued at $741,821, all of which was fresh except 21,736 pounds salted, valued at $2,385. There was an increase of 1,674,669 pounds in quantity and $354,630 in value as compared with the previous year. The catch was the largest taken in any year in the past five years. The next largest catch in this period was in 1916, when 3,458,765 pounds were landed at these ports. There has been a large increase in the receipts of halibut at Portland, which amounted in 1920 to 1,159,973 pounds, the next largest in the past five years being 535,314 pounds in 1916. There has also been a large increase in the receipts of halibut at Boston in recent years, but a decrease in those at Gloucester.

### MACKEREL.

The total catch of fresh mackerel taken by the American fishing fleet in 1920 was 79,799 barrels, compared with 53,992 barrels in 1919, an increase of 25,807 barrels. The total catch of salted mackerel was 4,897 barrels, compared with 7,007 barrels the previous year, a decrease of 2,110 barrels. The quantity of mackerel landed at Boston, Gloucester, and Portland by the fishing fleet during the year was 7,293,721 pounds, valued at $763,094, of which 6,284,529 pounds, valued at $671,310, were fresh, and 1,009,192 pounds, valued at $91,784, were salted. These were all landed by American fishing vessels. There was an increase in the total catch of mackerel landed at these ports of 1,580,525 pounds in quantity and $215,852 in value over the previous year.

The season of 1920 was one of the best on record in the southern mackerel fishery for both the purse-seine and gill-net vessels. The fleet numbered about 50 seiners and 125 netters. The first fare, consisting of 3,600 pounds of large mackerel, was landed by a Gloucester vessel, April 14, at Cape May. Some of the best stocks made by the seiners in the southern fishery were from $9,153 to $26,449, the crews sharing from $197 to $649. The mackerel caught weighed from 1½ to 3½ pounds each, averaging about 2 pounds each, and sold from 8 to 22 cents per pound, according to market conditions. The schooner *Helen G. McLean*, from Nova Scotia, engaged in the southern mackerel fishery, and is said to be the only Canadian vessel to engage in this fishery for 25 years. The first arrival at Boston was a fare of 35,000 pounds of large and medium fresh mackerel on May 14, caught 35 miles south by west of Block Island, and sold at 18 cents per pound. In May there was a large body of mackerel off South Shoal Lightship, and the receipts at Boston landed by vessels were larger than for the same month in any recent year. The catch of mackerel on the Cape Shore was disappointing; the weather was foggy and the fish were well offshore, wild, and hard to catch. The first fares landed at Boston from this locality arrived on June 7. The fresh mackerel sold at 12 cents per pound and the salted mackerel at $17 to $17.50 per barrel. Later arrivals of fresh mackerel sold from 10 to 10½ cents per pound. The Cape Shore fleet consisted of 30 vessels, which landed 1,290,000 pounds of fresh mackerel and 3,217 barrels of salt mackerel, compared with 32 vessels, and 2,119,000 pounds of fresh and 6,275 barrels of salt mackerel the previous year. The total catch of mackerel up to July 1 was 60,842 barrels fresh and 3,357 barrels salted, compared with 38,787 barrels fresh and 6,452 barrels salted the previous year.

### SWORDFISH.

The catch of swordfish amounted to 2,531,669 pounds, valued at $494,202. The number of vessels engaged in this fishery was 62, or 6 more than in the previous year, and there was a large increase in the catch.

### FLOUNDERS.

The catch of flounders in the vessel fisheries amounted to 3,637,774 pounds, valued at $166,895, an increase of 1,185,918 pounds, or 48.36 per cent, in quantity, and $63,845, or 61.95 per cent, in value.

The catch taken by boats under 5 tons net tonnage is not included in these statistics.

HERRING.

The catch of herring amounted to 6,997,984 pounds, valued at $166,301. Of this quantity, 3,900,960 pounds, valued at $56,144, were taken off the coast of the United States and landed fresh, and 3,097,024 pounds, valued at $110,157, were salted Newfoundland herring.

## VESSEL FISHERIES AT SEATTLE, WASH.

In the vessel fisheries at Seattle, Wash., there has been some increase in the total quantity and value of products landed by the fishing fleet, but considerable falling off in the products landed by collecting vessels as compared with the previous year. The increase in products landed by the fishing fleet was due to a larger catch of halibut, there being a marked decrease in the catch of sablefish, "lingcod," and rockfishes. Statistics of the vessel fisheries at Seattle have been collected by the local agent and published as monthly and annual statistical bulletins, giving the quantity and value of fishery products landed by American fishing and collecting vessels at that port.

In 1920 the fishing fleet at Seattle landed 822 trips, aggregating 14,355,450 pounds of fish, having a value to the fishermen of $1,992,759. This catch was taken from the various fishing grounds along the coast from Oregon to Portlock Bank, Alaska. The fishing areas from which the largest quantities of fish were obtained were Flattery Banks, west coast of Vancouver Island, and Hecate Strait. The products included halibut, 12,683,450 pounds, valued at $1,913,849; sablefish, 950,200 pounds, valued at $49,963; "lingcod," 513,035 pounds, valued at $21,153; and rockfishes, 208,765 pounds, valued at $7,794. Compared with the previous year there was an increase of 152 trips by fishing vessels, and of 704,430 pounds, or 5.16 per cent, in the quantity, and of $462,475, or 30.22 per cent, in the value, of the products landed. The catch of halibut increased 1,572,730 pounds, or 14.15 per cent, in quantity, and $491,330, or 34.53 per cent, in value, but there was a decrease in the catch of other species landed by fishing vessels. Sablefish decreased 603,400 pounds, or 38.83 per cent, in quantity, and $24,327, or 32.74 per cent, in value; "lingcod," 209,965 pounds, or 29.04 per cent, in quantity, and $3,280, or 13.42 per cent, in value; and rockfishes, 54,935 pounds, or 20.83 per cent, in quantity, and $1,248, or 13.80 per cent, in value.

The fishery products taken in Puget Sound and landed at Seattle by collecting vessels during the year amounted to 9,813,966 pounds, valued at $881,066. These products included salmon, 7,911,820 pounds, valued at $765,145; herring, 345,100 pounds, valued at $5,714; sturgeon, 1,860 pounds, valued at $186; steelhead trout, 139,882 pounds, valued at $19,094; smelt, 521,201 pounds, valued at $29,795; perch, 47,520 pounds, valued at $3,002; rockfishes, 130,200 pounds, valued at $8,793; "lingcod," 44,904 pounds, valued at $2,324; flounders, 86,065 pounds, valued at $1,720; sole, 128,920 pounds, valued at $4,475; and crabs, 456,494 pounds, valued at $40,818. There was a decrease in the products landed by collecting vessels, compared with the previous year, of 1,995,484 pounds, or 16.89 per cent, in quantity, and $102,753, or 10.44 per cent, in value.

This was due to a large falling off in the catch of salmon, amounting to 2,475,883 pounds, or 23.83 per cent, in quantity, and $137,572, or 15.23 per cent, in value. The decrease in salmon was offset to some extent by a considerable increase in various less important species.

The following table and figure 5 present the most productive fishing grounds in the order of their importance visited by the fishing fleet at Seattle during the past five years, with the quantity of halibut and other species taken from these areas in 1920, and also the average production of these species for the 5-year period from 1916 to 1920, inclusive:

POUNDS OF HALIBUT AND OTHER FISH LANDED BY FISHING VESSELS AT SEATTLE, WASH., IN 1920, COMPARED WITH THE 5-YEAR AVERAGE, 1916 TO 1920, SHOWN BY FISHING GROUNDS.

| Fishing grounds. | Halibut. | Other fish. | Total. |
|---|---|---|---|
| Hecate Strait: | | | |
| 1920 | 4,645,300 | 208,300 | 4,853,600 |
| 5-year average | 3,285,343 | 335,321 | 3,620,664 |
| Flattery Banks: | | | |
| 1920 | 2,661,000 | 806,500 | 3,467,500 |
| 5-year average | 2,504,936 | 1,376,590 | 3,881,526 |
| Vancouver Island (west coast): | | | |
| 1920 | 1,873,600 | 387,800 | 2,261,400 |
| 5-year average | 1,051,370 | 497,800 | 1,549,170 |
| Portlock Bank: | | | |
| 1920 | 952,050 | 1,600 | 953,650 |
| 5-year average | 1,444,804 | 61,091 | 1,505,895 |
| Yakutat grounds: | | | |
| 1920 | 906,000 | 5,000 | 911,000 |
| 5-year average | 2,137,458 | 95,531 | 2,232,989 |
| All others: | | | |
| 1920 | 1,645,500 | 262,800 | 1,908,300 |
| 5-year average | 2,237,298 | 785,166 | 3,022,464 |

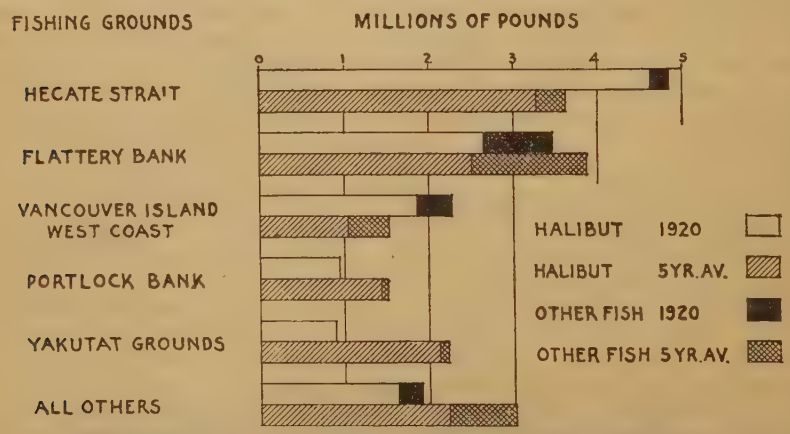



FIG. 5.—Quantities of halibut and other fish landed by fishing vessels at Seattle, Wash., in 1920, compared with the five-year average, 1916 to 1920, shown by fishing grounds.

The quantity and value of fishery products landed at Seattle by fishing and collecting vessels in 1920 are given in detail in the following table:

QUANTITIES AND VALUES OF CERTAIN FISHERY PRODUCTS (FRESH) LANDED AT SEATTLE, WASH., BY AMERICAN FISHING VESSELS, CALENDAR YEAR 1920.

| | Number of trips. | Halibut. | | Sablefish. | |
|---|---|---|---|---|---|
| | | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| BY FISHING GROUNDS. | | | | | |
| Oregon coast | 2 | 49,000 | $7,137 | ..... | ..... |
| Columbia River grounds | 1 | 30,000 | 3,946 | 3,000 | $150 |
| Grays Harbor grounds | 13 | 218,000 | 32,892 | 153,000 | 7,650 |
| Flattery Banks | 326 | 2,661,000 | 421,536 | 421,100 | 22,440 |
| West coast, Vancouver Island | 166 | 1,873,600 | 318,092 | 210,900 | 11,888 |
| Cape Scott grounds | 18 | 198,000 | 27,966 | 4,000 | 200 |
| Queen Charlotte Islands grounds | 20 | 581,500 | 86,187 | 30,000 | 1,500 |
| Hecate Strait | 221 | 4,645,300 | 702,994 | 98,200 | 4,505 |
| Forrester Island grounds | 14 | 497,000 | 72,993 | 25,000 | 1,330 |
| Cape Spencer | 3 | 72,000 | 11,145 | ..... | ..... |
| Yakutat grounds | 24 | 906,000 | 114,943 | 5,000 | 300 |
| Portlock Bank | 14 | 952,050 | 114,024 | ..... | ..... |
| Total | 822 | 12,683,450 | 1,913,849 | 950,200 | 49,963 |
| BY MONTHS. | | | | | |
| January | 7 | 191,700 | 30,130 | 9,000 | 460 |
| February | 28 | 563,900 | 75,410 | 31,500 | 1,555 |
| March | 68 | 935,000 | 128,394 | 59,800 | 2,970 |
| April | 88 | 977,200 | 154,618 | 22,200 | 1,020 |
| May | 119 | 1,717,600 | 234,024 | 29,500 | 1,425 |
| June | 100 | 1,769,050 | 265,044 | 70,600 | 3,125 |
| July | 105 | 1,932,000 | 276,791 | 235,800 | 11,790 |
| August | 111 | 1,802,800 | 269,672 | 213,000 | 10,650 |
| September | 76 | 1,094,600 | 178,657 | 115,000 | 7,285 |
| October | 64 | 740,800 | 147,894 | 108,000 | 6,480 |
| November | 46 | 917,000 | 144,075 | 50,000 | 2,855 |
| December | 10 | 41,800 | 9,140 | 5,800 | 348 |
| Total | 822 | 12,683,450 | 1,913,849 | 950,200 | 49,963 |

| | "Lingcod." | | Rockfishes. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| BY FISHING GROUNDS. | | | | | | |
| Oregon coast | ..... | ..... | ..... | ..... | 49,000 | $7,137 |
| Columbia River grounds | 2,000 | $60 | 1,000 | $30 | 36,000 | 4,180 |
| Gray's Harbor grounds | 14,000 | 500 | 2,000 | 60 | 387,000 | 41,102 |
| Flattery Banks | 298,365 | 12,491 | 87,035 | 3,453 | 3,467,500 | 459,920 |
| West coast, Vancouver Island | 133,860 | 5,825 | 43,040 | 2,007 | 2,261,400 | 337,812 |
| Cape Scott grounds | 6,500 | 130 | 3,300 | 66 | 211,800 | 28,362 |
| Queen Charlotte Islands grounds | 8,000 | 300 | 6,000 | 180 | 625,500 | 88,167 |
| Hecate Strait | 45,710 | 1,676 | 64,390 | 1,878 | 4,853,600 | 711,053 |
| Forrester Island grounds | 3,000 | 140 | 2,000 | 120 | 527,000 | 74,583 |
| Cape Spencer | ..... | ..... | ..... | ..... | 72,000 | 11,145 |
| Yakutat grounds | ..... | ..... | ..... | ..... | 911,000 | 115,243 |
| Portlock Bank | 1,600 | 31 | ..... | ..... | 953,650 | 114,055 |
| Total | 513,035 | 21,153 | 208,765 | 7,794 | 14,355,450 | 1,992,759 |
| BY MONTHS. | | | | | | |
| January | 8,000 | 530 | ..... | ..... | 208,700 | 31,120 |
| February | 25,000 | 1,140 | 8,000 | 580 | 628,400 | 78,685 |
| March | 48,900 | 1,507 | 20,800 | 644 | 1,064,500 | 133,515 |
| April | 93,535 | 2,408 | 46,665 | 1,204 | 1,139,600 | 159,250 |
| May | 29,000 | 580 | 13,800 | 276 | 1,789,900 | 236,305 |
| June | 23,600 | 591 | 19,000 | 360 | 1,882,250 | 269,120 |
| July | 26,000 | 560 | 16,000 | 360 | 2,209,800 | 289,501 |
| August | 57,000 | 2,200 | 15,500 | 595 | 2,088,300 | 283,117 |
| September | 144,000 | 8,497 | 49,000 | 2,655 | 1,402,600 | 197,094 |
| October | 48,500 | 2,730 | 16,000 | 940 | 913,300 | 158,044 |
| November | 9,500 | 410 | 4,000 | 180 | 980,500 | 147,520 |
| December | ..... | ..... | ..... | ..... | 47,600 | 9,488 |
| Total | 513,035 | 21,153 | 208,765 | 7,794 | 14,355,450 | 1,992,759 |

FISHERY PRODUCTS, BY MONTHS, TAKEN IN PUGET SOUND AND LANDED AT SEATTLE, WASH., BY COLLECTING VESSELS, 1920.

| Species. | January. | | February. | | March. | | April. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Herring | 42,000 | $2,440 | 144,000 | $1,440 | 55,000 | $550 | | |
| Salmon: | | | | | | | | |
| Chum or keta | 120,000 | 8,000 | | | | | 47,200 | $7,080 |
| King or spring | 14,000 | 1,400 | | | | | 60,000 | 9,000 |
| Coho or silver | | | | | | | | |
| Miscellaneous | 4,000 | 400 | | | | | 21,600 | 3,190 |
| Trout: Steelhead | | | | | 5,100 | 357 | 8,200 | 452 |
| Smelt | 55,000 | 2,200 | 56,000 | 1,960 | 20,000 | 1,600 | 25,000 | 3,000 |
| Perch | | | | | 15,550 | 782 | 11,000 | 770 |
| Rockfishes | 8,400 | 504 | 16,600 | 1,162 | 8,000 | 400 | | |
| "Lingcod" | 6,000 | 300 | 12,000 | 720 | 12,600 | 252 | 6,880 | 137 |
| Flounders | | | | | 20,000 | 800 | 14,000 | 560 |
| Sole | 21,600 | 840 | 28,000 | 700 | 70,620 | 4,865 | 19,260 | 1,400 |
| Crabs | 56,078 | 4,678 | 48,000 | 3,491 | | | | |
| Total | 327,078 | 20,762 | 304,600 | 9,473 | 206,970 | 9,606 | 213,140 | 25,589 |

| Species. | May. | | June. | | July. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Sturgeon | | | 1,860 | $186 | | |
| Herring | | | 12,300 | 246 | 3,300 | $33 |
| Salmon: | | | | | | |
| Humpback or pink | | | | | 31,750 | 1,905 |
| Chum or keta | | | | | 55,750 | 2,787 |
| King or spring | 248,000 | $34,720 | 803,450 | 112,483 | 860,930 | 103,311 |
| Coho or silver | | | 38,440 | 4,612 | 126,730 | 12,673 |
| Sockeye or red | | | 80,000 | 9,600 | 26,680 | 2,668 |
| Miscellaneous | 42,000 | 5,880 | | | | |
| Trout: Steelhead | 24,000 | 3,360 | 29,660 | 3,559 | 5,300 | 530 |
| Perch | | | 6,320 | 379 | 4,000 | 240 |
| Rockfishes | 10,000 | 800 | 13,800 | 897 | 8,000 | 560 |
| Flounders | 9,600 | 192 | 17,500 | 350 | 10,600 | 212 |
| Sole | 15,000 | 600 | 9,640 | 289 | | |
| Total | 348,600 | 45,552 | 1,012,970 | 132,601 | 1,133,040 | 124,919 |

| Species. | August. | | September. | | October. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Herring | 18,000 | $300 | 10,000 | $100 | | |
| Salmon: | | | | | | |
| Humpback or pink | 8,400 | 336 | | | | |
| Chum or keta | 158,540 | 6,340 | 250,800 | 12,740 | 1,438,280 | $86,296 |
| King or spring | 895,800 | 107,496 | 320,150 | 35,216 | 59,540 | 7,144 |
| Coho or silver | 196,180 | 20,618 | 312,600 | 31,260 | 464,400 | 46,440 |
| Sockeye or red | 20,000 | 2,040 | | | | |
| Trout: Steelhead | | | | | 2,590 | 259 |
| Smelt | 80,600 | 4,030 | 28,999 | 1,680 | 76,660 | 4,597 |
| Perch | | | 5,300 | 318 | 4,600 | 276 |
| Rockfishes | 12,000 | 840 | 10,150 | 710 | 10,000 | 600 |
| Flounders | | | 12,000 | 240 | 7,225 | 144 |
| Sole | 6,680 | 266 | | | | |
| Crabs | | | | | 91,608 | 7,287 |
| Total | 1,396,200 | 142,266 | 949,999 | 82,264 | 2,154,903 | 153,043 |

| Species. | November. | | December. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Sturgeon | | | | | 1,860 | $186 |
| Herring | | | 60,500 | $605 | 345,100 | 5,714 |
| Salmon: | | | | | | |
| Humpback or pink | | | | | 40,150 | 2,241 |
| Chum or keta | 769,920 | $38,496 | 359,000 | 43,080 | 3,152,290 | 197,739 |
| King or spring | 12,600 | 1,764 | 8,000 | 1,280 | 3,269,670 | 411,894 |
| Coho or silver | 49,080 | 3,926 | 29,600 | 4,154 | 1,277,030 | 132,683 |
| Sockeye or red | | | | | 126,680 | 14,308 |
| Miscellaneous | | | | | 46,000 | 6,280 |
| Trout: Steelhead | 10,452 | 1,254 | 46,280 | 6,942 | 139,882 | 19,094 |
| Smelt | 106,142 | 6,368 | 72,800 | 4,360 | 521,201 | 29,795 |
| Perch | 14,000 | 980 | | | 47,520 | 3,002 |
| Rockfishes | 8,600 | 688 | 6,000 | 480 | 130,200 | 8,793 |
| "Lingcod" | 12,424 | 645 | 6,480 | 259 | 44,904 | 2,324 |
| Flounders | 6,060 | 121 | 3,600 | 72 | 86,065 | 1,720 |
| Sole | | | 14,000 | 420 | 128,920 | 4,475 |
| Crabs | 79,200 | 11,880 | 91,728 | 7,217 | [1] 456,494 | 40,818 |
| Total | 1,068,478 | 66,122 | 697,988 | 68,869 | 9,813,966 | 881,066 |

[1] 20,650 dozen.

## FISHERY PRODUCTS RECEIVED AT MUNICIPAL FISH WHARF AND MARKET, WASHINGTON, D. C.[6]

The total receipts of fishery products at the Municipal Fish Wharf and Market, Washington, D. C., in 1920, were 8,573,984 pounds, a decrease of 2,159,102 pounds, or 20.11 per cent, as compared with 1919. The five most important products in terms of quantity were: Squeteagues or "sea trout," 1,925,334 pounds; oysters, 1,284,707 pounds, or 183,529 bushels; river herring, 1,068,660 pounds; shad, 1,035,822 pounds; and croaker, 743,415 pounds. These represent a total of 6,057,938 pounds, or 70.65 per cent of the entire receipts at this market for the year. Although differing in the order of their importance, these were the five principal species in 1919, representing 69.49 per cent of the entire receipts of the market for that year. The decrease in the total receipts of fish in 1920 as compared with the previous year is significant in view of the reported general decrease in the consumption of fishery products.

To supply local housewives with information as to species which are abundant in the Washington markets and seasons of abundance, the Bureau issued a post-card size fish calendar.

FISHERY PRODUCTS, IN POUNDS, RECEIVED AT MUNICIPAL FISH WHARF AND MARKET, WASHINGTON, D. C., 1920.

| Species. | January. | February. | March. | April. | May. | June. | July. |
|---|---|---|---|---|---|---|---|
| Bass, black and sea | 25,657 | 14,181 | 34,904 | 2,200 | 2,400 | 3,495 | 7,228 |
| Bluefish | 35 | | | | 800 | 10,950 | 550 |
| Butterfish | 500 | | | 1,300 | 15,700 | 40,300 | 59,850 |
| Carp | 4,270 | 13,471 | 14,533 | 10,295 | 17,909 | 9,654 | 4,954 |
| Catfish | 1,499 | 8,989 | 47,676 | 26,727 | 16,083 | 24,022 | 8,806 |
| Cod | 4,400 | 6,400 | 5,700 | 2,900 | 7,100 | 9,050 | 1,900 |
| Croaker | 480 | 800 | 101,100 | 218,919 | 89,397 | 120,712 | 96,263 |
| Eels | | | 355 | 2,155 | 998 | 673 | 338 |
| Flounders | 4,802 | 11,105 | 15,872 | 11,807 | 14,514 | 10,040 | 2,700 |
| Gizzard shad | 29,963 | 2,864 | 1,000 | | | | |
| Haddock | 6,867 | 43,450 | 26,200 | 3,420 | 2,750 | 3,100 | 1,300 |
| Hake | 2,500 | | | | | | |
| Halibut | 28,427 | 10,700 | 3,950 | 200 | 2,700 | 6,596 | 4,960 |
| Herring: | | | | | | | |
| River | 72,400 | 80,200 | 276,256 | 539,671 | 99,221 | 112 | |
| Sea | 30,000 | | | | | | |
| Hickory shad or "jacks" | 736 | 4,395 | 9,349 | 7,347 | 45 | | |
| Kingfish | 200 | | | 400 | | | |
| Mackerel | 50,000 | 1,400 | 2,012 | 8,400 | 17,200 | 37,635 | 2,470 |
| Mullet | 1,519 | 312 | 593 | | 150 | | |
| Perch | 2,490 | 11,602 | 71,167 | 25,459 | 10,363 | 4,994 | 3,976 |
| Pigfish | 200 | | | | | | |
| Pike or pickerel | 1,875 | 3,864 | 3,362 | 250 | 100 | 15 | 88 |
| Pollock | 2,700 | 1,800 | 4,100 | 2,000 | 600 | 1,000 | 900 |
| Redfish or red drum | | 200 | 400 | 400 | | | |
| Salmon | 6,558 | | 850 | | | 200 | 1,200 |
| Sup or porgy | | | | | | 1,000 | 1,500 |
| Shad | 1,400 | 21,842 | 184,625 | 685,268 | 118,602 | 1,100 | |
| Sheepshead | 400 | | 400 | | | | |
| Smelt | 3,175 | 1,905 | 300 | | | | |
| Snappers | | | | | | | 6 |
| Spot | 300 | | 2,500 | 2,400 | 8,465 | 7,534 | 18,550 |
| Squeteagues or "sea trout" | 27,785 | 8,000 | 15,460 | 44,687 | 443,997 | 199,800 | 210,207 |
| Striped bass | 4,100 | 3,349 | 12,712 | 28,478 | [1] 13,505 | 19,249 | 12,841 |
| Sturgeon | | | | 1,600 | 1,331 | | |
| Swordfish | | | | 400 | 1,450 | 400 | |
| Tullibee | | 1,000 | 2,000 | | | | |
| Whitefish | | | | 100 | | | |
| Whiting | 48,550 | 23,000 | 50,780 | | | | |
| Yams, hard | 5,632 | 8,768 | 6,656 | 6,376 | 14,520 | 9,888 | 17,387 |

[1] Includes 100 pounds white bass.

[6] Daily reports of the quantity of fishery products received at this market are received by the Bureau and tabulation through the courtesy of the Health Department of the District of Columbia.

FISHERY PRODUCTS, IN POUNDS, RECEIVED AT MUNICIPAL FISH WHARF AND MARKET, WASHINGTON, D. C., 1920—Continued.

| Species. | January. | February. | March. | April. | May. | June. | July. |
|---|---|---|---|---|---|---|---|
| Oysters: | | | | | | | |
| In the shell | 74,018 | 56,021 | 98,819 | 32,508 | 3,871 | 518 | 194 |
| Opened | 137,259 | 91,550 | 77,958 | 28,342 | 3,218 | | |
| Scallops | 80 | 160 | 240 | 400 | | | |
| Crabs | | | | 126 | 3,504 | 5,930 | 15,690 |
| Crabs, oyster | 100 | | | | | | |
| Crabmeat | 2,455 | 2,240 | 2,620 | 1,530 | 4,093 | 2,960 | 6,650 |
| Frogs | | | | 21 | 43 | 231 | |
| Lobster | 2,000 | | | | | | |
| Shrimp | 1,945 | 1,190 | 400 | 24,000 | | 250 | |
| Turtles | 1,245 | 990 | | 6 | 177 | 285 | 215 |
| Total | 588,522 | 435,748 | 1,074,849 | 1,720,092 | 914,806 | 531,693 | 480,723 |

| Species. | August. | September. | October. | November. | December. | Total. |
|---|---|---|---|---|---|---|
| Bass, black and sea | 2,293 | 280 | 1,386 | 16,044 | 32,001 | 142,069 |
| Bluefish | 10,975 | 11,695 | 13,875 | 600 | 1,500 | 50,980 |
| Butterfish | 63,600 | 66,850 | 27,100 | 22,400 | | 297,600 |
| Carp | 5,694 | 8,585 | 8,633 | 5,235 | 17,167 | 120,400 |
| Catfish | 8,402 | 10,296 | 15,082 | 14,053 | 10,501 | 192,136 |
| Cod | 2,400 | 4,100 | 1,400 | 4,800 | 10,380 | 60,530 |
| Croaker | 69,066 | 5,537 | 19,459 | 16,152 | 5,530 | 743,415 |
| Eels | 79 | 458 | 2,111 | 1,378 | 509 | 9,054 |
| Flounders | 3,175 | 7,351 | 13,004 | 15,686 | 7,334 | 117,390 |
| Gizzard shad | | | | | 6,600 | 40,427 |
| Haddock | 2,600 | 7,800 | [1] 4,625 | 5,400 | [2] 12,650 | 120,162 |
| Hake | | | | 13,500 | 6,950 | 22,950 |
| Halibut | 3,325 | 5,516 | 2,400 | 2,942 | 4,250 | 75,966 |
| Herring: | | | | | | |
| River | | | | | 800 | 1,068,660 |
| Sea | | | | | | 30,000 |
| Hickory shad or "jacks" | | | | | | 21,872 |
| Kingfish | | | | | | 600 |
| Mackerel | 5,600 | 11,500 | 2,200 | 10,300 | 13,450 | 162,167 |
| Mullet | 81 | 119 | 678 | 1,875 | 3,084 | 8,411 |
| Perch | 5,764 | 2,878 | 4,886 | 12,571 | 9,390 | 165,540 |
| Pigfish | | | | | | 200 |
| Pike or pickerel | 280 | 850 | 2,144 | 2,754 | 5,094 | 20,676 |
| Pollock | 2,400 | 2,300 | 1,400 | 2,700 | 10,150 | 32,050 |
| Pompano | | 1,000 | | | | 1,000 |
| Redfish or red drum | | 675 | 40 | 3,100 | | 4,815 |
| Salmon | 715 | 5,525 | 10,580 | 300 | | 25,928 |
| Scup or porgy | | | | | | 2,500 |
| Shad | | 200 | 785 | 1,750 | 20,250 | 1,035,822 |
| Sheepshead | | | | | | 800 |
| Smelt | | | | | 1,450 | 6,830 |
| Snappers | | 27 | | | 85 | 118 |
| Spot | 19,863 | 36,395 | 32,480 | 7,200 | 1,800 | 137,487 |
| Squeteagues or "sea trout" | 199,518 | 304,186 | 307,564 | 115,600 | 48,530 | 1,925,334 |
| Striped bass | 17,192 | 25,350 | 37,413 | 48,230 | 5,704 | 228,123 |
| Sturgeon | 53 | | 107 | 200 | | 3,291 |
| Tilefish | | 900 | 5,300 | 1,700 | 900 | 11,050 |
| Tullibee | | | | | | 3,000 |
| Whitefish | | | 100 | | | 200 |
| Whiting | | | | 44,300 | 400 | 167,030 |
| Clams, hard | 8,864 | 5,871 | 4,526 | 1,760 | 1,344 | 91,592 |
| Oysters: | | | | | | |
| In the shell | 323 | 3,588 | 103,898 | 164,374 | 147,539 | [3] 685,671 |
| Opened | 413 | 30,116 | 52,431 | 82,436 | 95,313 | [4] 599,036 |
| Scallops | | | | | | 880 |
| Crabs | 15,550 | 24,213 | 6,525 | 375 | | 71,913 |
| Crabs, oyster | | | | | | 100 |
| Crabmeat | 7,290 | 2,700 | 135 | | 45 | 32,718 |
| Frogs | | | | | | 295 |
| Lobster | | | | | | 2,000 |
| Shrimp | 50 | 400 | 815 | 437 | 298 | 29,788 |
| Turtles | 300 | 100 | 93 | | | 3,417 |
| Total | 455,865 | 587,361 | 683,175 | 620,152 | 480,998 | 8,573,98[illegible] |

[1] Includes 250 pounds smoked haddock.
[2] Includes 600 pounds smoked haddock.
[3] 97,953 bushels. The oysters have been reduced to pounds on the basis of 7 pounds of meat to a bushe and 8¼ pounds to a gallon
[4] 72,610 gallons.

## SHAD FISHERY OF THE HUDSON RIVER.[7]

In 1920 there were 368 persons engaged in this fishery, an increase of 69 persons as compared with 1919. The investment amounted to $40,351, which includes 185 rowboats, valued at $10,011; 10 gasoline boats, valued at $2,050; 200 gill nets, valued at $23,710; 10 seines, valued at $1,655; and shore and accessory property to the value of $2,925.

The catch numbered 49,315 fish, or 199,844 pounds, valued at $56,309. Of this quantity the number of shad taken on the New York side of the river was 39,692, or 157,715 pounds, valued at $43,882, and on the New Jersey side, 9,623 shad, or 42,129 pounds, valued at $12,427. The catch with gill nets was 47,444 shad, or 96.2 per cent of the total catch. The average number of shad taken per gill net was 237.

Compared with 1919 there was a decrease in the number of shad taken of 40,986, or 45.38 per cent, and of $27,415, or 32.74 per cent, in the value. Compared with 1918 there was a decrease of 18,088, or 26.83 per cent, in the number of fish and an increase of $1,131, or 2.34 per cent, in the value.

SHAD FISHERY OF THE HUDSON RIVER, 1920.

| Item. | New York. | | | New Jersey. | | | Total. | | |
|---|---|---|---|---|---|---|---|---|---|
| | *Number.* | *Pounds.* | *Value.* | *Number.* | *Pounds.* | *Value.* | *Number.* | *Pounds.* | *Value.* |
| Fishermen | 352 | | | 16 | | | 368 | | |
| Rowboats | 178 | | $9,486 | 7 | | $525 | 185 | | $10,011 |
| Gasoline boats | 7 | | 1,100 | 3 | | 950 | 10 | | 2,050 |
| Gill nets | 190 | | 21,810 | 10 | | 1,900 | 200 | | 23,710 |
| Seines | 10 | | 1,655 | | | | 10 | | 1,655 |
| Shore and accessory property | | | 1,925 | | | 1,000 | | | 2,925 |
| Total | | | 35,976 | | | 4,375 | | | 40,351 |
| Shad caught: | | | | | | | | | |
| With gill nets | 37,821 | 150,658 | 42,089 | 9,623 | 42,129 | 12,427 | 47,444 | 192,787 | 54,516 |
| With seines | 1,871 | 7,057 | 1,793 | | | | 1,871 | 7,057 | 1,793 |
| Total | 39,692 | 157,715 | 43,882 | 9,623 | 42,129 | 12,427 | 49,315 | 199,844 | 56,309 |

## SHAD AND ALEWIFE FISHERY OF THE POTOMAC RIVER.[8]

In 1920 there were 753 persons engaged in this fishery, using 451 oats, valued at $83,889; 271 pound nets, valued at $126,455; 211 ill nets and 1 haul seine, valued at $39,620; and shore and acces- ory property to the value of $1,375.

The catch of shad was slightly smaller than in 1919, numbering 29,358, or 1,979,780 pounds, valued at $334,464. Of this quantity 0,944 shad, or 302,237 pounds, valued at $55,963, were taken by laryland fishermen and 448,414 shad, or 1,677,543 pounds, valued at 278,501, by Virginia fishermen. The catch of river herring by laryland fishermen numbered 1,077,775, or 538,888 pounds, valued t $13,940, and by Virginia fishermen 7,681,561, or 3,813,780 pounds, alued at $41,197, the total catch being 8,759,336, or 4,352,668 ounds, valued at $55,137. This represents a decrease of 108,566 in umber and $5,879 in the value as compared with 1919.

[7] The canvass of this fishery was made by Rob Leon Greer, Statistical Agent, U. S. Bureau of Fisheries.
[8] The canvass of this fishery was made by G. W. Hoofnagle, apprentice fish-culturist, Edenton, N. C.

SHAD AND ALEWIFE FISHERY OF THE POTOMAC RIVER, 1920.

| Item. | Maryland. | | | Virginia. | | | Total. | | |
|---|---|---|---|---|---|---|---|---|---|
| | *Number.* | *Pounds.* | *Value.* | *Number.* | *Pounds.* | *Value.* | *Number.* | *Pounds.* | *Value.* |
| Fishermen | 204 | | | 549 | | | 753 | | |
| Rowboats | 87 | | $3,225 | 118 | | $4,047 | 205 | | $7,272 |
| Gasoline | 28 | | 6,620 | 218 | | 69,997 | 246 | | 76,617 |
| Pound nets | 71 | | 10,360 | 200 | | 116,095 | 271 | | 126,455 |
| Gill nets and seines [1] | 66 | | 13,800 | 146 | | 25,820 | 212 | | 39,620 |
| Shore and accessory property | | | 300 | | | 1,075 | | | 1,375 |
| Total | | | 34,305 | | | 217,034 | | | 251,339 |
| Shad caught: | | | | | | | | | |
| With pound nets and traps | 7,144 | 26,487 | 4,263 | 356,552 | 1,326,923 | 211,039 | 363,696 | 1,353,410 | 215,302 |
| With gill nets and seines [1] | 73,800 | 275,750 | 51,700 | 91,862 | 350,620 | 67,462 | 165,662 | 626,370 | 119,162 |
| Total | 80,944 | 302,237 | 55,963 | 448,414 | 1,677,543 | 278,501 | 529,358 | 1,979,780 | 334,464 |
| Alewives caught: | | | | | | | | | |
| With pound nets and traps | 757,775 | 378,888 | 7,540 | 7,477,561 | 3,711,780 | 37,117 | 8,235,336 | 4,090,668 | 44,657 |
| With gill nets and seines [1] | 320,000 | 160,000 | 6,400 | 204,000 | 102,000 | 4,080 | 524,000 | 262,000 | 10,480 |
| Total | 1,077,775 | 538,888 | 13,940 | 7,681,561 | 3,813,780 | 41,197 | 8,759,336 | 4,352,668 | 55,137 |

[1] Includes 1 haul seine, with the catch, operated in Maryland.

## FISH, FROZEN.

### COLD-STORAGE HOLDINGS DURING 1920.

Beginning with October 15, 1917, the Bureau of Markets of the Department of Agriculture has issued monthly mimeographed reports of the storage holdings of frozen and cured fish and also a bulletin (No. 792) for holdings in 1918, in which the storage holdings are presented in diagrammatic form with discussions and tables. Brief summaries of holdings of frozen fish have appeared in The Market Reporter, published weekly by the same bureau. During 1920 the monthly mimeographed memoranda have contained the storage holdings on the fifteenth of the month by species, comparisons of holdings with other months, quantities frozen and quantities delivered since the fifteenth of previous month, comparisons with holdings at fifteenth of previous month, and storage holdings by geographic sections.

Appended is a summary of the holdings by species and by months for 1920, including totals for 1918 and 1919, which have been compiled from the reports of the Bureau of Markets:

COLD-STORAGE HOLDINGS OF FROZEN FISH, BY SPECIES FOR 1920, AND BY TOTALS FOR 1919 AND 1918,[1] GIVEN IN POUNDS.

| Species. | Jan. 15. | Feb. 15. | Mar. 15. | Apr. 15. | May 15. | June 15. |
|---|---|---|---|---|---|---|
| Bluefish | 301,383 | 232,912 | 135,296 | 91,190 | 108,967 | 219,124 |
| Butterfish | 459,374 | 334,741 | 253,706 | 206,915 | 181,621 | 200,877 |
| Ciscoes | 4,302,545 | 3,284,821 | 1,868,346 | 1,173,570 | 802,401 | 566,535 |
| Cod, hake, pollock, and haddock | 3,923,930 | 2,904,850 | 1,724,706 | 1,480,928 | 1,405,403 | 1,856,260 |
| Croaker | 82,314 | 37,952 | 10,528 | 31,111 | 33,944 | 64,023 |
| Halibut | 7,788,546 | 5,375,287 | 3,991,261 | 3,091,887 | 4,155,392 | 5,726,088 |
| Herring | 9,303,418 | 6,507,254 | 3,732,770 | 2,010,888 | 2,205,187 | 3,305,773 |
| Lake trout | 1,229,998 | 821,392 | 315,009 | 91,298 | 251,947 | 411,690 |
| Mackerel | 2,339,005 | 2,102,720 | 1,209,358 | 735,773 | 1,056,182 | 1,758,346 |
| Rockfishes | 400,880 | 290,888 | 234,771 | 178,661 | 139,704 | 162,537 |
| Sablefish | 1,354,336 | 765,428 | 508,469 | 306,910 | 253,414 | 177,546 |
| Salmon | 5,701,129 | 4,516,290 | 2,921,559 | 1,996,938 | 1,739,342 | 1,874,337 |
| Sea bass | 109,354 | 81,105 | 50,417 | 40,402 | 50,480 | 69,959 |
| Shad | 541,315 | 309,024 | 133,079 | 147,239 | 177,391 | 419,393 |
| Shad roe | 14,252 | 12,374 | 5,846 | 18,446 | 16,094 | 46,326 |
| Smelt, eulachon, etc | 610,700 | 689,722 | 387,922 | 202,832 | 142,963 | 110,246 |
| Squeteague | 439,011 | 291,179 | 95,709 | 57,188 | 38,462 | 123,598 |
| Squid | 422,208 | 282,791 | 183,922 | 95,895 | 93,745 | 517,814 |
| Whitefish | 2,220,140 | 1,964,965 | 1,371,491 | 822,721 | 381,594 | 287,471 |
| Whiting | 9,319,624 | 6,864,067 | 3,470,098 | 2,287,080 | 1,332,930 | 2,374,659 |
| Miscellaneous | 10,635,659 | 10,292,863 | 6,775,413 | 5,501,952 | 5,717,307 | 7,428,240 |
| Total, 1920 | 61,499,121 | 47,962,625 | 29,379,676 | 20,569,824 | 20,284,470 | 27,730,842 |
| Total, 1919 | 80,844,524 | 66,675,012 | 49,889,032 | 37,110,856 | 37,068,407 | 47,370,741 |
| Total, 1918 | 49,562,848 | 35,907,071 | 28,457,301 | 26,548,472 | 31,403,425 | 50,298,027 |

| Species. | July 15. | Aug. 15. | Sept. 15. | Oct. 15. | Nov. 15. | Dec. 15. |
|---|---|---|---|---|---|---|
| Bluefish | 153,286 | 210,881 | 283,771 | 303,195 | 402,451 | 411,000 |
| Butterfish | 283,174 | 507,992 | 515,035 | 933,513 | 1,353,337 | 1,199,000 |
| Ciscoes | 620,704 | 2,152,253 | 4,868,638 | 6,306,065 | 6,045,595 | 6,533,000 |
| Cod, hake, pollock, and haddock | 1,690,736 | 2,113,959 | 2,577,704 | 3,040,676 | 3,785,894 | 3,538,000 |
| Croaker | 108,777 | 281,429 | 108,882 | 706,404 | 703,814 | 577,000 |
| Halibut | 6,609,561 | 8,629,889 | 10,340,381 | 10,661,832 | 9,761,076 | 8,694,000 |
| Herring | 5,342,182 | 5,480,143 | 5,430,419 | 6,083,108 | 6,582,737 | 7,738,000 |
| Lake trout | 463,036 | 554,365 | 554,590 | 953,691 | 1,675,026 | 2,108,000 |
| Mackerel | 3,064,809 | 3,014,641 | 2,677,822 | 2,620,092 | 2,788,666 | 2,405,000 |
| Rockfishes | 124,330 | 185,228 | 199,928 | 200,548 | 215,944 | 143,000 |
| Sablefish | 283,333 | 596,683 | 834,172 | 1,118,903 | 1,019,398 | 919,000 |
| Salmon | 2,563,384 | 3,467,706 | 4,676,452 | 6,771,546 | 8,094,984 | 7,128,000 |
| Sea bass | 85,493 | 121,771 | 109,134 | 106,504 | 123,598 | 130,000 |
| Shad | 433,773 | 473,731 | 502,435 | 493,734 | 475,704 | 340,000 |
| Shad roe | 62,328 | 49,416 | 42,973 | 41,984 | 41,772 | 42,000 |
| Smelt, eulachon, etc | 88,826 | 100,968 | 115,625 | 162,557 | 162,197 | 182,000 |
| Squeteague | 460,703 | 449,301 | 498,421 | 861,561 | 1,007,848 | 812,000 |
| Squid | 699,532 | 865,924 | 2,162,909 | 2,580,377 | 2,625,801 | 2,226,000 |
| Whitefish | 331,269 | 623,567 | 1,015,279 | 1,100,929 | 1,089,815 | 1,985,000 |
| Whiting | 4,395,069 | 8,630,018 | 9,648,503 | 9,536,391 | 9,412,377 | 7,811,000 |
| Miscellaneous | 7,928,975 | 8,563,480 | 8,439,277 | 9,854,135 | 10,459,900 | 10,466,000 |
| Total, 1920 | 35,793,280 | 47,073,345 | 55,602,350 | 64,437,745 | 67,827,934 | 65,387,000 |
| Total, 1919 | 59,363,929 | 64,740,173 | 69,554,969 | 76,138,809 | 78,477,504 | 73,936,025 |
| Total, 1918 | 64,859,532 | 82,773,229 | 89,557,970 | 94,411,748 | 99,631,789 | 96,600,247 |

[1] The 1918 totals are taken from "Reports of Storage Holdings of Certain Food Products during 1918," by John O. Bell, U. S. Department of Agriculture Bulletin No. 792, and the 1919 and 1920 holdings from the mimeographed memoranda issued monthly by the Bureau of Markets.

## QUANTITIES FROZEN IN 1920.

The quantities of fish frozen between January 15, 1920, and January 15, 1921, based on the monthly memoranda issued by the Bureau of Markets was 85,324,366 pounds. The principal varieties frozen were as follows: Halibut, 10,625,029 pounds; herring, 10,356,305 pounds; whiting, 10,208,755 pounds; salmon, 7,836,620 pounds; ciscoes, 6,968,750 pounds; mackerel, 4,835,173 pounds; cod, haddock, hake, and pollock, 3,940,163 pounds; and squid, 2,252,720 pounds. The item of miscellaneous fishes amounted to

16,454,317 pounds and includes albacore, bonito, burbot, catfish, eels, flounders, German and buffalo carp, horse mackerel, Spanish mackerel, perch, pike, pickerel, pompano, red snapper, sheepshead, swordfish, tilefish, tuna, all kinds of fresh and salt water bass except sea bass, and all other frozen fish including soft crabs and bay scallops. The item of frozen shad of 411,398 pounds includes 31,063 pounds of shad roe. Figure 6 shows the relative amounts of each species frozen.

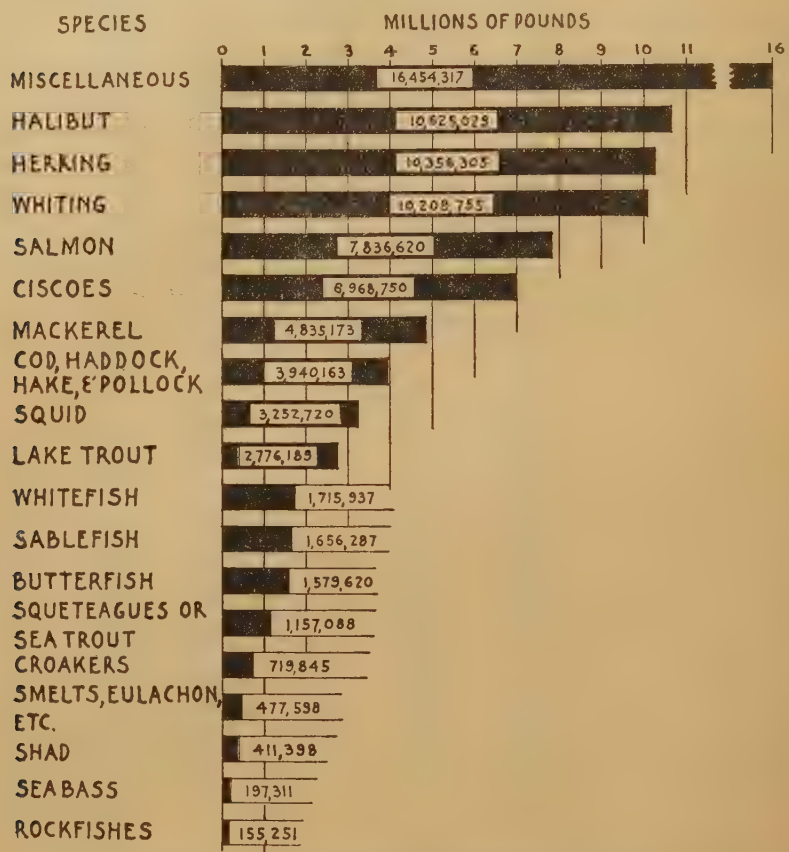



FIG. 6.—Quantities of fish frozen during 1920, shown by species.

## FISHERIES OF CALIFORNIA IN 1920.

Through the courtesy of the California State Fish and Game Commission the Bureau has received copies of its monthly sheets showing the catch of fish by species and by localities for the calendar year 1920. In the appended table, page 57, these figures have been compiled by months and by species, such an arrangement being of value in ascertaining seasonal variation in catch. There has also been added a table, page 59, of the imports of fresh fish from Mexico to California centers during 1920.

## COMMON AND SCIENTIFIC NAMES OF FISHES.

To provide a clearer understanding of the species to which reference is made in the tables and discussions, the following list of common and scientific names of the fishes of California, as accurately as it has been possible to ascertain them, is appended. As the reports do not in all cases distinguish between albacore and the species of tuna it is impracticable to separate the catch by species. Under flounders have been grouped the "bastard halibut" (*Paralichthys californicus*), the "turbot" (*Hypsopsetta guttulata*), sand dabs (*Citharichthys sordidus*), and a number of flounders locally designated as soles. The "hake" (*Merluccius productus*) of the west coast is closely related to the New England whiting, being a member of the same genus, and the adoption of the latter name would avoid confusion. *Menticirrhus undulatus* is designated as surffish, kingfish, and California whiting by the fishermen, and *Genyonemus lineatus*, another species belonging to the family of croakers, is commonly called kingfish. On the Atlantic seaboard the Bureau has recommended the adoption of the name king whiting for species of Menticirrhus. The "lingcod" is called cultus-cod on the California coast. Included with the catch of rockfishes are boccaccio (*Sebastodes paucispinis*) and chilipepper (*S. goodei* and *jordani*). The young of the white sea bass (*Cynoscion nobilis*) are designated as "sea trout" and the species of sharks as grayfish by the fishermen.

| | |
|---|---|
| Albacore and tuna | *Germo alalunga.*<br>*Germo macropterus.*<br>*Thunnus thynnus.* |
| Anchovies | Engraulis (species).<br>Anchovialla (species). |
| Barracuda | *Sphyræna argentea.* |
| Bluefish, California, or squeteague | *Cynoscion parvipinnis.* |
| Bonito or skipjack | *Sarda chilensis.* |
| Carp | *Cyprinus carpio.* |
| Catfish | Ameiurus (species). |
| Eels | *Lycodontis mordax.*<br>Muræna (species). |
| Flounders | Pleuronectidæ (species). |
| Greenfish or rudderfish | *Girella nigricans.* |
| "Hake" | *Merluccius productus.* |
| Hardhead | *Orthodon microlepidotus.* |
| Herring | *Clupea pallasii.* |
| Kingfish | *Genyonemus lineatus.* |
| "Lingcod" | *Ophiodon elongatus.* |
| Mackerel | *Scomber japonicus.* |
| Mullet | *Mugil cephalus.* |
| "Perches," surf | Embiotocidæ (species). |
| Pike, Sacramento | *Ptychocheilus oregonensis.* |
| Pilchard | *Sardinia cærulea.* |
| Pompano, California | *Palometa simillima.* |
| Rockfishes | Sebastodes (species).<br>Sebastichthys (species). |
| Sablefish | *Anoplopoma fimbria.* |
| Salmon | Oncorhynchus (species). |
| Sculpin | *Scorpæna guttata.* |
| Sea bass, black | *Stereolepis gigas.* |
| Sea basses or "rock bass" | *Paralabrax clathratus.*<br>*Paralabrax maculatofasciatus.*<br>*Paralabrax nebulifer.* |
| Sea bass, white or squeteague | *Cynoscion nobilis.* |
| Shad | *Alosa sapidissima.* |
| Sharks | All Selachii except Batoidei. |

| | |
|---|---|
| Sheepshead | *Anisotremus davidsonii.*<br>*Caulolatilus princeps.*<br>*Pimelometopon pulcher.* |
| Skates | Raja (species).<br>*Platyrhinoides triseriatus.*<br>*Rhinobatus productus.* |
| "Smelt" | Atherinidæ (species). |
| Splittail | *Pogonichthys macrolepidotus.* |
| Steelhead trout | *Salmo gairdneri.* |
| Striped bass | *Roccus lineatus.* |
| Stingarees or stingrays | *Dasyatis dipterura.*<br>*Pteroplatea marmorata.*<br>*Urolophus halleri.*<br>*Myliobatis californicus.* |
| Suckers | *Catostomus occidentalis.* |
| Surffish | *Menticirrhus undulatus.* |
| Swordfish | *Xiphias gladius.* |
| Tomcod | *Microgadus proximus.* |
| Whitebait | Small fry of any fish. |
| Whitefish | *Caulolatilus princeps.* |
| Yellowtail | *Seriola dorsalis.* |
| Crabs | *Cancer magister.* |
| Shrimps | *Crago franciscorum.*<br>*Crago nigricauda.*<br>*Crago nigrimaculata.* |
| Sea crawfish or spiny lobster | *Panulirus interruptus.* |
| Abalones | Haliotis (species). |
| Clams: | |
| Hard | *Tivela stultorum.* |
| Soft | *Mya arenaria.* |
| Cockles | Cardium (species). |
| Limpets | Gastropoda (species). |
| Mussels | *Mytilus californianus.*<br>*Mytilus edulis.* |
| Oysters: | |
| Eastern | *Ostrea virginica.* |
| Native | *Ostrea lurida.* |
| Scallops | *Pecten æquisulcatus.* |
| Snails | Gastropoda (species). |
| Octopus | *Polypus hongkongensis.* |
| Squid | *Loligo opalescens.* |

## PRODUCTS.

The total yield of the fisheries of California in 1920 amounted to 212,635,075 pounds. The principal products were as follows: Pilchards, 118,517,729 pounds; albacore and tuna, 36,144,340 pounds; salmon, 11,077,014 pounds; bonito or skipjack, 8,614,581 pounds; flounders, 7,792,626 pounds; rockfishes, 5,503,187 pounds; and barracuda, 4,584,476 pounds. These products represent a total of 192,233,953 pounds, or 90.40 per cent of the total quantity credited to the State. The catch of shad amounted to 1,408,980 pounds; of sharks, skates, and rays to 1,253,648 pounds; of shrimp to 818,042 pounds; of squid to 507,751 pounds; of sea crawfish or spiny lobster to 247,156 pounds; of oysters to 148,924 pounds or 21,275 bushels; of octopus to 70,740 pounds; and of cockles to 18,054 pounds.

The imports of fresh fish from Mexico in 1920 amounted to 8,121,225 pounds. The principal products imported were as follows: Barracuda, 3,615,947 pounds; flounders, 1,678,264 pounds; sea crawfish or spiny lobster, 942,020 pounds; tuna, 724,281 pounds; white sea bass, or squeteague, 252,462 pounds; yellowtail, 218,400 pounds; and bonito or skipjack, 216,344 pounds.

PRODUCTS, IN POUNDS, OF THE FISHERIES OF CALIFORNIA, 1920.

| Species. | January. | February. | March. | April. | May. | June. | July. |
|---|---|---|---|---|---|---|---|
| Albacore and tuna | 14,984 | 1,603 | 2,237 | | 105 | 929,837 | 14,609,950 |
| Anchovies | 4,572 | 19,391 | 225 | 27,455 | 53,890 | 70,380 | 48,050 |
| Barracuda | 28,076 | 97,739 | 304,845 | 1,189,488 | 995,456 | 703,632 | 300,687 |
| Bluefish, California, or squeteague | 9,480 | 5,049 | 2,079 | | | | |
| Bonito or skipjack | 32,261 | 25,711 | 21,133 | 1,165 | 5,644 | 2,457 | 44,330 |
| Carp | 15,458 | 19,772 | 43,513 | 21,972 | 14,685 | 3,224 | 7,177 |
| Catfish | 5,599 | 7,532 | 20,880 | 37,464 | 19,533 | | |
| Flounders | 737,590 | 847,813 | 849,875 | 755,276 | 1,018,631 | 641,780 | 689,247 |
| Greenfish or rudderfish | | 412 | | | | | |
| "Hake" | 5,500 | 2,030 | 3,170 | 6,527 | 13,138 | 17,860 | 14,510 |
| Hardhead | 2,753 | 3,565 | 4,688 | 1,380 | | | |
| Herring | 76,632 | 89,707 | 59,177 | 810 | | | |
| Kingfish | 125,104 | 18,269 | 46,779 | 85,637 | 58,502 | 16,742 | 7,774 |
| "Lingcod" | 160,109 | 45,729 | 52,324 | 19,332 | 37,203 | 37,149 | 90,166 |
| Mackerel | 104,689 | 176,424 | 75,667 | 466,318 | 242,550 | 270,228 | 136,205 |
| Mullet | 15,912 | 29 | 80 | | | 55 | 110 |
| "Perches," surf | 12,102 | 13,299 | 34,658 | 39,177 | 5,027 | 1,531 | 12,152 |
| Pike, Sacramento | 1,074 | 1,488 | 1,327 | 1,380 | 299 | 22 | 5 |
| Pilchard | 23,776,733 | 21,190,860 | 10,715,798 | 3,910,008 | 2,466,602 | 2,405,151 | 2,567,481 |
| Pompano, California | 2,523 | 2,607 | 6,435 | 6,250 | 1,880 | 689 | 594 |
| Rockfishes | 570,541 | 931,615 | 605,478 | 284,722 | 408,009 | 331,287 | 374,930 |
| Sablefish | 89,953 | 124,923 | 135,689 | 66,933 | 32,252 | 54,433 | 40,538 |
| Salmon | 27,048 | 70,042 | 238,160 | 783,721 | 1,108,955 | 1,097,138 | 2,648,203 |
| Sculpin | 2,387 | 515 | 2,866 | 3,978 | 7,882 | 1,076 | 419 |
| Sea bass, black | 5,533 | 6,031 | 14,565 | 19,284 | 3,085 | 5,418 | 7,935 |
| Sea basses or "rock bass" | 3,282 | 4,390 | 4,240 | 5,908 | 7,435 | 47,245 | 30,719 |
| Sea bass, white or squeteague | 15,423 | 285,230 | 109,340 | 364,401 | 313,808 | 256,675 | 200,232 |
| Shad | 925 | 3,093 | 91,529 | 597,250 | 713,905 | | |
| Sharks | 65,142 | 141,428 | 15,105 | 44,727 | 141,749 | 113,439 | 64,429 |
| Sheepshead | 4,199 | 4,336 | 65 | 1,088 | 56 | 7 | 370 |
| Skates | 13,434 | 5,819 | 23,907 | 6,777 | 3,480 | 7,262 | 1,719 |
| "Smelt" | 41,990 | 62,209 | 83,963 | 48,441 | 50,942 | 34,363 | 70,268 |
| Split-tail | 3,653 | 3,553 | 4,869 | 544 | | | |
| Steelhead trout | | | | 10 | | | 740 |
| Striped bass | 57,834 | 85,668 | 90,722 | 153,677 | 140,957 | 1,804 | |
| Stingarees or stingrays | | | | 70,760 | 125,857 | 94,670 | 53,646 |
| Suckers | 695 | 444 | 429 | 563 | 30 | | |
| Surffish | | | | | 10 | | |
| Swordfish | 24 | | | | | 163 | 673 |
| Tomcod | 5,582 | 9,493 | 5,430 | 15 | 2,245 | 6,522 | 2,286 |
| Whitebait | | 31 | 37 | 10 | 89 | 29 | |
| Whitefish | 1,092 | 1,738 | 571 | 6 | | | |
| Yellowtail | 55,943 | 20,497 | 189,208 | 231,788 | 216,719 | 173,808 | 48,404 |
| Other fish | 18,623 | 37,977 | 26,295 | 6,997 | 16,700 | 9,148 | 14,151 |
| Crabs | 307,780 | 146,542 | 104,038 | 73,018 | 161,106 | 55,132 | 6,292 |
| Shrimps | 68,204 | 52,545 | 62,147 | 117,711 | 90,569 | 42,729 | 86,696 |
| Sea crawfish or spiny lobster | 44,685 | 43,166 | | | | | |
| Abalones | 13,088 | | 30,362 | 53,535 | 75,145 | 96,588 | 150,285 |
| Clams | 41,226 | 39,725 | 40,677 | 49,035 | 43,999 | 51,675 | 59,951 |
| Cockles | 2,218 | 2,708 | 4,385 | 2,240 | 1,913 | 1,601 | 320 |
| Limpets | | 55 | 480 | 1,200 | 1,400 | 7,900 | 3,900 |
| Mussels | 1,082 | 1,352 | 3,747 | 2,066 | 3,413 | 10,505 | 6,847 |
| Oysters: | | | | | | | |
| Eastern | 9,099 | 9,344 | 6,040 | 7,974 | 6,205 | 4,629 | 4,200 |
| Native | 5,230 | 4,325 | 5,075 | 6,460 | 11,742 | 8,178 | 10,150 |
| Scallops | 50 | 246 | 217 | 212 | 34 | | |
| Snails | 273 | 280 | | | | | |
| Octopus | 11,706 | 14,432 | 6,640 | 8,599 | 5,784 | 5,778 | 5,122 |
| Squid | 67,524 | 195,039 | 119,920 | | 6,824 | 86,882 | 9,795 |
| Total | 26,687,519 | 24,827,820 | 14,271,086 | 9,583,289 | 8,635,444 | 7,706,821 | 22,431,658 |

PRODUCTS, IN POUNDS, OF THE FISHERIES OF CALIFORNIA, 1920—Continued.

| Species. | August. | September. | October. | November. | December. | Total. |
|---|---|---|---|---|---|---|
| Albacore and tuna | 14,819,308 | 3,801,885 | 1,954,324 | 8,948 | 1,159 | 36,144,340 |
| Anchovies | 16,485 | 199,577 | 87,561 | 28,405 | 14,695 | 570,686 |
| Barracuda | 219,553 | 308,899 | 285,362 | 53,022 | 97,717 | 4,584,476 |
| Bluefish, California, or squeteague | 54 | | 6,724 | 6,045 | 2,798 | 32,229 |
| Bonito or skipjack | 3,058,975 | 3,784,239 | 1,474,619 | 112,557 | 51,490 | [1] 8,614,581 |
| Carp | 340 | 150 | 302 | 1,614 | 6,213 | 134,420 |
| Catfish | 1,367 | 2,173 | 3,014 | 9,931 | 4,872 | 112,365 |
| Eels | | | 180 | | | 180 |
| Flounders | 563,746 | 515,164 | 371,617 | 389,434 | 412,453 | 7,792,626 |
| Greenfish or rudderfish | | | | | | 412 |
| "Hake" | 7,110 | 14,079 | 16,207 | 29,925 | 11,925 | 141,981 |
| Hardhead | 470 | | | | 467 | 13,323 |
| Herring | | | 130 | 303 | 47,605 | 274,364 |
| Kingfish | 3,442 | 8,728 | 23,477 | 30,989 | 35,968 | 461,411 |
| "Lingcod" | 72,105 | 47,725 | 50,019 | 45,847 | 30,246 | 687,954 |
| Mackerel | 306,088 | 383,946 | 306,474 | 188,653 | 340,066 | 2,997,308 |
| Mullet | 980 | 347 | | | | 17,513 |
| "Perches," surf | 2,121 | 2,590 | 17,105 | 14,784 | 26,585 | 181,131 |
| Pike, Sacramento | 62 | 12 | | 899 | 1,570 | 8,138 |
| Pilchard | 13,130,386 | 14,163,753 | 11,102,753 | 8,990,053 | 4,098,151 | 118,517,729 |
| Pompano, California | 75 | 858 | 6,436 | 1,060 | 719 | 30,126 |
| Rockfishes | 298,448 | 285,248 | 321,742 | 421,234 | 669,933 | 5,503,187 |
| Sablefish | 45,386 | 9,233 | 67,814 | 86,772 | 27,106 | 781,032 |
| Salmon | 2,862,287 | 1,879,429 | 152,691 | 172,114 | 37,226 | 11,077,014 |
| Sculpin | 22 | 1,610 | 7,451 | 2,367 | 5,101 | 35,674 |
| Sea bass, black | 4,215 | 4,784 | 6,552 | 7,026 | 5,441 | 89,869 |
| Sea basses or "rock bass" | 28,742 | 27,715 | 23,665 | 12,059 | 11,675 | 207,075 |
| Sea bass, white or squeteague | 443,558 | 263,553 | 42,526 | 45,651 | 35,896 | 2,376,293 |
| Shad | 1,169 | 188 | | 639 | 282 | 1,408,980 |
| Sharks | 45,319 | 39,153 | 30,414 | 41,154 | 56,662 | 798,721 |
| Sheepshead | 280 | 107 | 877 | 1,027 | 1,990 | 14,402 |
| Skates | 437 | 6,774 | 1,020 | 6,650 | 11,652 | 88,931 |
| "Smelt" | 59,727 | 76,895 | 77,129 | 82,057 | 42,491 | 730,475 |
| Split-tail | | 23 | | 288 | 1,154 | 14,084 |
| Steelhead trout | 5,160 | | | 425 | 664 | 6,999 |
| Striped bass | 39,701 | 48,080 | | 37,204 | 66,084 | 671,731 |
| Stingarees or stingrays | 14,195 | 5,383 | 665 | | 820 | 365,996 |
| Suckers | | | 264 | 287 | | 2,712 |
| Surffish | | | | | | 10 |
| Swordfish | 2,600 | 5,812 | 2,598 | 370 | | 12,240 |
| Tomcod | 606 | 128 | | 1,884 | 3,046 | 37,237 |
| Whitebait | | | 8 | 147 | 387 | 738 |
| Whitefish | 90 | | 20 | 1,517 | 2,385 | 7,419 |
| Yellowtail | 108,582 | 250,128 | 632,753 | 463,334 | 84,119 | 2,475,283 |
| Other fish | 18,921 | 6,082 | 28,988 | 54,002 | 19,054 | 256,938 |
| Crabs | | | | 96,074 | 165,880 | [2] 1,115,862 |
| Shrimps | 82,015 | 141,048 | 32,955 | 24,148 | 17,275 | 818,042 |
| Sea crawfish or spiny lobster | | | 40,509 | 68,861 | 49,935 | 247,156 |
| Abalones | 105,061 | 59,365 | 55,859 | 95,430 | 71,998 | 806,716 |
| Clams | 42,245 | 58,659 | 51,662 | 45,370 | 44,181 | 568,405 |
| Cockles | 550 | 167 | 75 | 76 | 1,801 | 18,054 |
| Limpets | 3,900 | | | | | 18,835 |
| Mussels | 3,070 | 139 | 140 | 224 | 125 | 32,710 |
| Oysters: | | | | | | |
| Eastern | 5,229 | 6,751 | 8,976 | 8,997 | 10,839 | [3] 89,183 |
| Native | 4,594 | 2,082 | 1,575 | 330 | | 59,741 |
| Scallops | | | | | | 759 |
| Snails | | | 175 | 60 | | 788 |
| Octopus | 4,102 | 375 | 2,199 | 3,207 | 2,796 | 70,740 |
| Squid | 21,392 | | | 322 | 53 | 507,751 |
| Total | 36,454,270 | 26,413,036 | 17,297,606 | 11,693,776 | 6,632,750 | 212,635,075 |

[1] This item may include some striped tuna. [2] 50,721 in number. [3] 5,096,182 in number.

MEXICAN FISHERY PRODUCTS, IN POUNDS, IMPORTED INTO CALIFORNIA, 1920.

| Species. | January. | February. | March. | April. | May. | June. | July. |
|---|---|---|---|---|---|---|---|
| Barracuda | 651,055 | 480,903 | 608,706 | 21,604 | | | 1,615 |
| Bonito or skipjack | 106,050 | 31,085 | 1,955 | 10,844 | | | |
| Flounders | 104,938 | 160,078 | 87,377 | 61,529 | 48,180 | 12,980 | 100,674 |
| Mackerel | 28,056 | 3,450 | 745 | 515 | | | |
| "Perches," surf | 40 | 250 | | | | | |
| Pilchard | | | 3,185 | | | | |
| Pompano, California | 80 | 89 | 62 | | | | |
| Rockfishes | 2,210 | 80,099 | 1,620 | | | 170 | |
| Sea basses or "rock bass" | 125 | 190 | 315 | | | 210 | |
| Sea bass, black | 8,063 | 9,757 | 9,398 | 550 | | | 2,412 |
| Sea bass, white, or squeteague | 23,900 | 23,343 | 5,478 | 3,505 | 1,560 | 4,780 | 26,497 |
| Sharks | | | 12,628 | | | | |
| "Smelt" | 39 | | | | | | |
| Stingarees or stingrays | | | 24,885 | | | | |
| Swordfish | | | | | | 273 | |
| Tuna | | | | 122,316 | 375,647 | | |
| Whitefish | | 2,137 | 2,280 | | | | |
| Yellowtail | 24,517 | 14,793 | 29,528 | 15,845 | | 5,045 | 915 |
| Other fish | 630 | | | | | | |
| Sea crawfish or spiny lobster | 77,440 | 103,508 | 136,008 | 131,030 | 118,408 | 71,305 | |
| Abalones | 20,200 | | 9,750 | 1,509 | | | 16,642 |
| Clams | 12,900 | 5,600 | | 4,827 | | 2,230 | |
| Turtles | | | 2,180 | | | 38,399 | 34,039 |
| Total | 1,060,243 | 915,282 | 936,100 | 374,074 | 543,795 | 135,392 | 182,794 |

| Species. | August. | September. | October. | November. | December. | Total. |
|---|---|---|---|---|---|---|
| Barracuda | 147,511 | 173,622 | 531,107 | 543,124 | 456,700 | 3,615,947 |
| Bonito or skipjack | 798 | 11,028 | 18,539 | 20,038 | 16,007 | 216,344 |
| Flounders | 229,603 | 297,907 | 432,770 | 106,278 | 35,950 | 1,678,264 |
| Kingfish | | | 48 | | | 48 |
| Mackerel | 1,912 | 5,230 | 8,895 | 390 | 1,539 | 50,732 |
| Mullet | 90 | | | | | 90 |
| "Perches," surf | | | 50 | 670 | 4,230 | 5,240 |
| Pilchard | | | | | | 3,185 |
| Pompano, California | | | | | | 231 |
| Rockfishes | 1,745 | 885 | 1,733 | 9,009 | 190 | 97,661 |
| Sea basses or "rock bass" | | 485 | 75 | 1,090 | 815 | 3,305 |
| Sea bass, black | 1,858 | 2,018 | 6,923 | 4,397 | 12,792 | 58,168 |
| Sea bass, white, or squeteague | 90,245 | 41,414 | 20,360 | 9,174 | 2,206 | 252,462 |
| Sharks | | | | | | 12,628 |
| Sheepshead | | 165 | | | | 165 |
| "Smelt" | 500 | 171 | 966 | 6,396 | 5,640 | 13,712 |
| Stingarees or stingrays | | | | | | 24,885 |
| Swordfish | | | | | | 273 |
| Tuna | | 200,415 | 16,278 | | 9,625 | 724,281 |
| Whitefish | | | | 435 | | 4,852 |
| Yellowtail | 3,952 | 26,870 | 48,535 | 43,140 | 5,260 | 218,400 |
| Other fish | | | | | | 630 |
| Sea crawfish or spiny lobster | | 22,443 | 90,590 | 105,330 | 85,958 | 942,020 |
| Abalones | 11,287 | 7,367 | 19,317 | 6,651 | 2,387 | 95,110 |
| Clams | | | | | | 25,557 |
| Turtles | | 2,300 | | | | 76,918 |
| Total | 489,501 | 792,500 | 1,196,123 | 856,122 | 639,299 | 8,121,225 |

## FISHERIES OF THE SOUTH ATLANTIC STATES IN 1918.

The statistics of the fisheries contained in this report apply to the commercial coast fisheries of North Carolina, South Carolina, Georgia, and the eastern coast of Florida for the calendar year, 1918.[9] The results of a similar canvass of the fisheries of the Gulf States in 1918, including the western coast of Florida, are included in "Fishery Industries of the United States. Report of the Division of Statistics and Methods of the Fisheries for 1919," pages 129 to 191.

[9] The data were collected by Winthrop A. Roberts and Rob Leon Greer, assisted in North Carolina by Arthur Orr, E. M. Haynes, and G. W. Hoofnagle.

## EARLIER PUBLICATIONS.

Some of the earlier publications relating to the fisheries of the South Atlantic States and published in Washington, D. C., follow:

1887. North Carolina and Its Fisheries. By R. Edward Earll. *In* The Fisheries and Fishery Industries of the United States, by G. Brown Goode et al., Sec. II, Pt. XII, p. 475–497.

The Fisheries of South Carolina and Georgia. By R. Edward Earll. Ibid., Sec. II, Pt. XIII, p. 499–518.

Eastern Florida and Its Fisheries. By R. Edward Earll. Ibid., Sec. II, Pt. XIV, p. 519–531.

History and Methods of the Fisheries. Ibid., Sec. V, Vol. I (xi+808 p.), Vol. II (xx+881 p.), and atlas of 275 pls.

1892. V. The Fisheries of the South Atlantic States [1887 and 1888]. *In* Statistical Review of the Coast Fisheries of the United States, prepared under the direction of J. W. Collins. Report, U. S. Commission of Fish and Fisheries, 1888 (1892), p. 351–361.

1893. Report on the Fisheries of the South Atlantic States. By Hugh M. Smith. Bulletin, U. S. Fish Commission, Vol. XI, 1891 (1893), p. 269–356, Pl. XLIII–LXXIV.

1897. Report on the Fisheries of Indian River, Florida. By John J. Brice et al. Report, U. S. Commission of Fish and Fisheries, 1896 (1898), p. 223–262, pl. 23–59.

1898. Report on the Fish and Fisheries of the Coastal Waters of Florida. By John J. Brice. Report, U. S. Commission of Fish and Fisheries, 1896 (1898), p. 263–342.

1899. Notes on the Extent and Condition of the Alewife Fisheries of the United States in 1896. By Hugh M. Smith. Report, U. S. Commission of Fish and Fisheries, 1898 (1899), p. 31–43.

The Shad Fisheries of the Atlantic Coast of the United States. By Charles H. Stevenson. Ibid., p. 101–176.

1900. Statistics of the Fisheries of the South Atlantic States [1897]. Report, U. S. Commission of Fish and Fisheries, 1899 (1900), p. 171–227.

1905. Statistics of the South Atlantic States, 1902. Report, U. S. Commission of Fish and Fisheries, 1903 (1905), p. 343–410.

1911. Fisheries of the United States, 1908. Special Reports, Bureau of the Census, 1911.

## COMMON AND SCIENTIFIC NAMES OF FISHES.

In the appended list are given the common and scientific names of the species of fishes of the South Atlantic States listed in the statistical tables, as accurately as it has been practicable to determine them, for the guidance of the reader.

| | |
|---|---|
| Alewives | *Pomolobus æstivalis.*<br>*Pomolobus pseudoharengus.* |
| Amberfish | Seriola (species). |
| Angelfish | *Chætodipterus faber.* |
| Barracuda | Sphyræna (species). |
| Black bass | *Micropterus dolomieu.*<br>*Micropterus salmoides.* |
| Bluefish | *Pomatomus saltatrix.* |
| Blue runner or hardtail | *Caranx crysos.* |
| Bonito | *Sarda sarda.* |
| Bowfin | *Amiatus calvus.* |
| Butterfish | *Poronotus triacanthus.* |
| Carp | *Cyprinus carpio.* |
| Catfish | Siluridæ (species). |
| Cero and kingfish | *Scomberomorus cavalla.*<br>*Scomberomorus regalis.* |
| Cowfish and "shellfish" | Ostraciidæ (species). |
| Crappie | *Pomoxis sparoides.* |
| Crevalle | Caranx (species). |
| Croaker | *Micropogon undulatus.* |

| | |
|---|---|
| Drum, red and black | *Sciænops ocellatus.*<br>*Pogonias cromis.* |
| Eels | *Anguilla rostrata.*<br>Other Apodes. |
| Flounders | Pleuronectidæ (species). |
| Gizzard shad | *Dorosoma cepedianum.* |
| Groupers | Epinephelus (species).<br>Mycteroperca (species).<br>*Garrupa nigrita.* |
| Grunts | Hæmulidæ (species). |
| Hickory shad | *Pomolobus mediocris.* |
| Hogfish | *Lachnolaimus maximus.* |
| Jewfish | *Promicrops guttatus.* |
| King whiting | Menticirrhus (species). |
| Ladyfish | *Albula vulpes.* |
| Leather jacket or "turbot" | *Balistes carolinensis.* |
| Menhaden | *Brevoortia tyrannus.* |
| Moonfish | *Vomer setipinnis.* |
| Mullet | *Mugil cephalus.*<br>*Mugil curema.* |
| Parrotfish | Scaridæ (species). |
| Perch, white | *Morone americana.* |
| Perch, yellow | *Perca flavescens.* |
| Permit | *Trachinotus goodei.* |
| Pigfish | *Orthopristis chrysopterus.* |
| Pike or pickerel | Esox (species). |
| Pinfish or sailor's choice | *Lagodon rhomboides.*<br>Other species. |
| Pompano | *Trachinotus carolinus.*<br>Trachinotus (other species).<br>(See also Permit.) |
| Porgies (Gulf) | Calamus (species).<br>Pagrus (species). |
| Porkfish | *Anisotremus virginicus.* |
| Scup | Stenotomus (species). |
| Sea bass | *Centropristes striatus.* |
| Sea gar or needlefish | Tylosurus (species).<br>Ablennes (species). |
| Sergeantfish or snook | *Centropomus undecimalis.* |
| Shad | *Alosa sapidissima.* |
| Sharks | All Selachii except Batoidei. |
| Sheepshead | *Archosargus probatocephalus.* |
| Skates | Batoidei (species). |
| Snapper, mangrove | *Lutianus griseus.* |
| Snapper, mutton | *Lutianus analis.* |
| Snapper, red | *Lutianus blackfordi.* |
| Spanish mackerel | *Scomberomorus maculatus.* |
| Spot | *Leiostomus xanthurus.* |
| Squeteagues or "sea trout" | *Cynoscion regalis.*<br>*Cynoscion nothus.*<br>*Cynoscion nebulosus.* |
| Striped bass | *Roccus lineatus.* |
| Sturgeon | *Acipenser sturio.* |
| Suckers | Castostomidæ (species). |
| Sunfish | Centrarchidæ (species). |
| Tautog | *Tautoga onitis.* |
| Tilefish | *Lopholatilus chamæleonticeps.* |
| Yellowtail or "silver perch" | *Bairdiella chrysura.* |

## GENERAL STATISTICS

The number of persons engaged in the fisheries of the South Atlantic States in 1918 was 15,046, of whom 1,964 were on vessels fishing, 91 on vessels transporting fishery products, 8,604 in shore fisheries, and 4,387 shoremen in the wholesale fishery trade, oyster canneries, fertilizer factories, and other industries connected with

the fisheries. Of the total, 8,036 are credited to North Carolina, 2,000 to South Carolina, 1,680 to Georgia, and 3,330 to the east coast of Florida.

Compared with the returns for 1902, there has been a decrease in the number of persons employed in North Carolina of 6,719, or 45.54 per cent; in South Carolina, a decrease of 1,713, or 46.14 per cent; in Georgia, a decrease of 606, or 26.51 per cent, and in Florida, an increase of 632 persons, or 23.42 per cent. The total decrease for the entire region amounts to 8,406, or 35.84 per cent.

The capital invested in the fisheries of this region amounted to $7,423,971, distributed as follows: North Carolina, $4,222,043; South Carolina, $221,251; Georgia, $769,998; and the east coast of Florida, $2,210,679. The investment included 261 fishing and transporting vessels, valued at $1,855,588 and having a net tonnage of 5,597 tons and outfits valued at $565,858; 5,632 boats, valued at $910,218; fishing apparatus used by vessels and boats, valued at $957,239; shore and accessory property to the value of $2,731,918; and cash capital to the amount of $403,150.

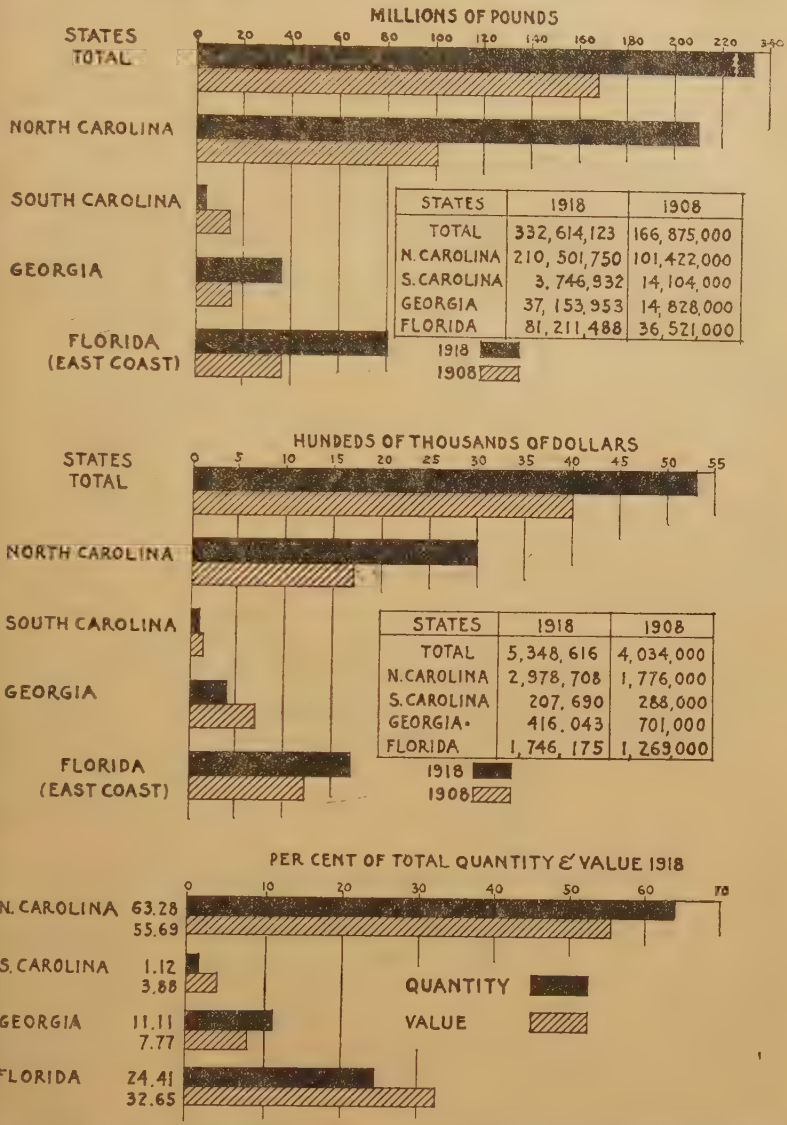
Compared with 1902, there has been an increase in the investment in North Carolina amounting to $2,248,602, or 113.94 per cent; in South Carolina, a decrease of $99,472, or 31.01 per cent; in Georgia, an increase of $427,848, or 125.04 per cent, and on the east coast of Florida, an increase of $1,855,844, or 523.01 per cent, representing a total increase for the region of $4,432,822, or 148.19 per cent.

The principal forms of fishing apparatus arranged in order of their value were: 3,779 pound nets, valued at $355,439; 15,399 gill nets, valued at $233,883; 91 purse seines, valued at $219,027; 582 haul seines, valued at $102,193; and 371 otter trawls, valued at $22,055. Other apparatus employed included fyke nets, dredges, lines, cast nets, stop nets, eel pots, tongs, grabs, rakes, spears, etc., to the value of $24,642. The use of the otter trawl introduced in the shrimp fishery at Fernandina, Fla., about 1915, represents the most important change in fishing apparatus since 1902.

The products of the fisheries amounted to 332,614,123 pounds, having a value to the fishermen of $5,348,616. The yield of the various States was as follows: North Carolina, 210,501,750 pounds, valued at $2,978,708; South Carolina, 3,746,932 pounds, valued at $207,690; Georgia, 37,153,953 pounds, valued at $416,043; and east coast of Florida, 81,211,488 pounds, valued at $1,746,175.

The more important species taken in these States were: Alewives, fresh and salted, taken mostly in North Carolina, 15,185,585 pounds, valued at $412,067; black bass, credited to North Carolina, 551,125 pounds, valued at $63,137; bluefish, 892,045 pounds, valued at $85,567; cero and kingfish, taken mostly in Florida, 2,483,647 pounds, valued at $161,562; menhaden, 257,757,799 pounds, valued at $1,605,117; mullet, fresh and salted, 11,757,318 pounds, valued at $508,044; sea bass, 577,596 pounds, valued at $50,592; shad, 2,888,644 pounds, valued at $568,585; Spanish mackerel, credited mostly to Florida, 3,211,405 pounds, valued at $232,355; spot, 1,692,775 pounds, valued at $72,795; squeteagues or "sea trout," 5,105,249 pounds, valued at $360,527; shrimp, 15,656,903 pounds, valued at $470,346; and oysters, 5,871,376 pounds, or 838,768 bushels, valued at $260,863.

Compared with the Bureau's returns for 1902, there has been an increase in the products of the fisheries of 226,168,051 pounds, or 212.47 per cent, in quantity and of $2,508,983, or 88.35 per cent, in value. Compared with the census returns for 1908, the increase




| STATES | 1918 | 1908 |
|---|---|---|
| TOTAL | 332,614,123 | 166,875,000 |
| N. CAROLINA | 210,501,750 | 101,422,000 |
| S. CAROLINA | 3,746,932 | 14,104,000 |
| GEORGIA | 37,153,953 | 14,828,000 |
| FLORIDA | 81,211,488 | 36,521,000 |

| STATES | 1918 | 1908 |
|---|---|---|
| TOTAL | 5,348,616 | 4,034,000 |
| N. CAROLINA | 2,978,708 | 1,776,000 |
| S. CAROLINA | 207,690 | 288,000 |
| GEORGIA | 416,043 | 701,000 |
| FLORIDA | 1,746,175 | 1,269,000 |

FIG. 7.—Top: Quantities of fish taken in the commercial fisheries of the South Atlantic States in 1918 compared with 1908. Center: Values of fish taken in the commercial fisheries of the South Atlantic States in 1918 compared with 1908. Bottom: Percentages of total quantity and value of fishery products for each of the South Atlantic States in 1918.

amounts to 165,739,123 pounds, or 99.31 per cent, in quantity and $1,314,616, or 32.58 per cent, in value. The large increase in the catch for 1918 over that of previous years is due to the increase in the catch of menhaden, the 1902 catch amounting to 18,862,000 pounds, valued at $31,420. The catch of other species in 1902

amounted to 87,584,072 pounds, valued at $2,808,213, and in 1918 to 74,856,324 pounds, valued at $3,743,499, a decrease of 14.53 per cent in quantity and an increase of 33.30 per cent in value. Compared with 1902 the increase in North Carolina amounted to 142,917,016 pounds, or 211.46 per cent, in quantity and $1,239,047, or 71.22 per cent, in value; in Georgia, to 26,051,343 pounds, or 234.64 per cent, in quantity and $56,962, or 15.86 per cent, in value; and on the east coast of Florida, to 61,627,223 pounds, or 314.67 per cent, in quantity and $1,268,307, or 265.41 per cent, in value. In South Carolina there was a decrease in the quantity amounting to 4,427,531 pounds, or 54.16 per cent, and in value of $55,333, or 21.03 per cent.

As an index of the trend of the fisheries of the South Atlantic States it is of interest to compare for various years from 1890 to 1918 the catch of certain staple species with the take of forms which have increased greatly in importance in recent years, species of which in the past there has been a comparative abundance but a lack of demand. For this purpose alewives, mullet, shad, squeteagues, and oysters have been selected as representative of staple varieties and cero (including kingfish), red and black drum, menhaden, Spanish mackerel, and shrimp, representing species for which the demand has greatly increased in recent years, resulting in much more intensive fishing operations. Lacking accurate data, for comparative purposes, as to the intensiveness with which these fisheries were prosecuted, it is difficult to draw definite conclusions regarding the present status of these fisheries, but the figures are nevertheless of interest. A study of the appended table reveals comparatively small fluctuations in the catch of alewives over the entire period. The fishery for mullet has more than doubled since 1890 but shows a reduction in the catch in 1918 as compared with 1902 and 1908. That the supply of shad is being depleted is indicated by the striking reduction in the catch in 1918 in comparison with that for other years. In comparison with 1908, the decrease amounts to 5,683,356 pounds, or 66.30 per cent. The fluctuation in the catch of squeteagues is not so marked, and in the absence of accurate information as to the intensiveness of fishing operations for the various years, the status of this fishery is largely conjectural. As on other parts of the coast, there has been a striking decline in the take of oysters.

With greater development of the fisheries and inability to supply the demand for staple varieties, the growth of other fisheries has been quite striking as indicated by the statistics for cero and kingfish, red and black drum, Spanish mackerel, and shrimp. On the Atlantic seaboard, the demand for red drum or "channel bass," as it is often called, has never been as great as on the Gulf and difficulty has been experienced in marketing it, particularly in the more northern part of its range. The increased catch of menhaden for conversion into oil and scrap is also of interest.

PRODUCTS, IN POUNDS, OF CERTAIN FISHERIES OF THE SOUTH ATLANTIC STATES, VARIOUS YEARS, 1890 TO 1918.

| Year. | Alewives. | Mullet. | Shad. | Squeteague or sea trout. | Oysters. |
|---|---|---|---|---|---|
| 1890 | 16,543,783 | 5,573,623 | 9,385,354 | 2,368,067 | 8,344,805 |
| 1897 | 15,856,350 | 5,934,942 | 11,268,343 | 3,741,274 | 11,285,268 |
| 1902 | 11,601,172 | 14,310,808 | 9,849,338 | 4,848,269 | 22,719,074 |
| 1908 | 12,180,000 | 14,501,800 | 8,572,000 | 8,615,000 | 30,549,000 |
| 1918 | 15,185,585 | 11,757,318 | 2,888,644 | 5,105,249 | 5,871,376 |

PRODUCTS, IN POUNDS, OF CERTAIN FISHERIES OF THE SOUTH ATLANTIC STATES, VARIOUS YEARS, 1890 TO 1918—Continued.

| Year. | Cero and kingfish. | Drum, red and black. | Menhaden. | Spanish mackerel. | Shrimp. |
|---|---|---|---|---|---|
| 890 | ..... | 692,003 | 12,410,400 | ..... | 744,025 |
| 897 | 358,070 | 772,032 | 11,310,000 | 362,390 | 627,221 |
| 902 | 77,170 | 583,394 | 18,862,000 | 1,013,172 | 3,810,641 |
| 908 | ..... | 1,421,000 | 57,412,000 | 1,685,000 | 5,697,000 |
| 918 | 2,483,647 | 1,007,311 | 257,757,799 | 3,211,405 | 15,656,903 |

As indicative of the trend of important fisheries common to the South Atlantic and Gulf coasts the following table is of interest. In view of the present high degree of development of the fisheries in these sections, it is becoming increasingly important that frequent statistical inventories be made to supply information as to whether these fisheries are being endangered and as to the needs for restrictive measures to safeguard the harvests of the future.

PRODUCTS, IN POUNDS, OF CERTAIN FISHERIES OF THE SOUTH ATLANTIC AND GULF STATES, VARIOUS YEARS, 1890 TO 1918.

| Year. | Mullet. | Spanish mackerel. | Squeteague or sea trout. | Shrimp. | Oysters. |
|---|---|---|---|---|---|
| 890 | 20,758,740 | 700,459 | 5,327,500 | 8,195,375 | 28,931,903 |
| 897 | 21,286,828 | 1,089,066 | 6,835,377 | 7,418,246 | 27,942,406 |
| 902 | 41,544,130 | 2,597,063 | 9,637,316 | 16,177,551 | 56,835,009 |
| 908 | 33,354,800 | 3,171,000 | 12,705,000 | 18,258,001 | 74,952,000 |
| 918 | 40,398,682 | 6,706,250 | 10,065,987 | 42,799,902 | 29,625,841 |

The following tables contain statistics of the number of persons employed, the amount of capital invested, the quantity and value of the products of the fisheries of the South Atlantic States in 1918, and comparative statistics of persons, investment, and products for various years from 1880 to 1918.

FISHERIES OF THE SOUTH ATLANTIC STATES, 1918.

| Item. | North Carolina. | | South Carolina. | |
|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 1,295 | ..... | 103 | ..... |
| On vessels transporting | 54 | ..... | 20 | ..... |
| On shore fisheries | 4,903 | ..... | 1,121 | ..... |
| Shoresmen | 1,784 | ..... | 756 | ..... |
| Total | 8,036 | ..... | 2,000 | ..... |
| INVESTMENT. | | | | |
| Vessels fishing: | | | | |
| Steam | 15 | $807,315 | ..... | ..... |
| Tonnage | 1,791 | ..... | ..... | ..... |
| Outfit | ..... | 246,685 | ..... | ..... |
| Gasoline | 55 | 413,710 | 3 | $7,005 |
| Tonnage | 1,258 | ..... | 74 | ..... |
| Outfit | ..... | 166,360 | ..... | 2,075 |
| Sail | 48 | 28,700 | 33 | 20,995 |
| Tonnage | 388 | ..... | 357 | ..... |
| Outfit | ..... | 9,745 | ..... | 4,415 |
| Vessels transporting: | | | | |
| Gasoline | 25 | 24,600 | 7 | 11,000 |
| Tonnage | 197 | ..... | 74 | ..... |
| Outfit | ..... | 13,775 | ..... | 1,350 |
| Sail | 12 | 9,700 | ..... | ..... |
| Tonnage | 92 | ..... | ..... | ..... |
| Outfit | ..... | 4,450 | ..... | ..... |

FISHERIES OF THE SOUTH ATLANTIC STATES, 1918—Continued.

| Item. | North Carolina. | | South Carolina. | |
|---|---|---|---|---|
| INVESTMENT—continued. | | | | |
| Boats: | *Number.* | *Value.* | *Number.* | *Value.* |
| Sail, row, etc. | 1,727 | $38,053 | 639 | $15,810 |
| Power | 1,357 | 269,720 | 51 | 20,600 |
| Apparatus, vessel fisheries: | | | | |
| Purse seines | 57 | 156,727 | | |
| Gill nets | 13 | 800 | | |
| Lines | | 50 | | 100 |
| Otter trawls | 2 | 100 | | |
| Dredges | 86 | 2,655 | | |
| Tongs and grabs | 22 | 100 | 165 | 527 |
| Apparatus, shore fisheries: | | | | |
| Purse seines | 3 | 1,600 | | |
| Haul seines | 440 | 41,533 | 25 | 2,550 |
| Gill nets | 14,299 | 108,878 | 233 | 16,525 |
| Pound nets | 3,779 | 355,439 | | |
| Fyke nets | 591 | 6,230 | | |
| Cast nets | | | 71 | 155 |
| Stop nets | 6 | 90 | 2 | 130 |
| Lines | | 333 | | 515 |
| Otter trawls | 27 | 960 | 2 | 90 |
| Eel pots | 1,585 | 1,329 | | |
| Dredges | 550 | 2,648 | | |
| Tongs, grabs, and rakes | 1,008 | 2,046 | 549 | 1,482 |
| Spears or gigs | 80 | 78 | 36 | 27 |
| Crab traps and drags | 113 | 565 | | |
| Other apparatus | | 375 | | 25 |
| Shore and accessory property | | 1,347,644 | | 95,775 |
| Cash capital | | 159,050 | | 20,100 |
| Total | | 4,222,043 | | 221,251 |
| PRODUCTS. | | | | |
| Alewives: | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | 8,739,944 | $238,624 | 9,500 | $475 |
| Salted | 5,743,876 | 162,595 | | |
| Angelfish | 8,975 | 340 | | |
| Black bass | 551,125 | 63,137 | | |
| Bluefish | 322,744 | 29,677 | 3,000 | 275 |
| Bonito | 3,015 | 107 | | |
| Bowfin | 34,372 | 319 | | |
| Butterfish | 731,257 | 24,785 | 600 | 45 |
| Carp | 153,169 | 5,619 | | |
| Catfish | 304,509 | 9,783 | 2,900 | 108 |
| Cero and Kingfish | 211,781 | 13,947 | | |
| Crappie | 5,340 | 568 | | |
| Crevalle | 204 | 11 | 300 | 65 |
| Croaker | 386,807 | 11,912 | 16,000 | 1,062 |
| Drum, red and black | 99,546 | 3,246 | 6,000 | 285 |
| Eels | 174,541 | 13,333 | | |
| Flounders | 91,121 | 7,022 | 16,200 | 1,061 |
| Gizzard shad | 44,525 | 1,154 | | |
| Grunts | 15,000 | 1,150 | 100 | 6 |
| Hickory shad | 158,443 | 13,388 | 20,500 | 2,000 |
| King whiting | | | 40,125 | 4,707 |
| Menhaden | 179,910,599 | 1,306,489 | | |
| Mullet: | | | | |
| Fresh | 812,679 | 52,734 | 58,050 | 4,223 |
| Salted | 315,350 | 38,341 | 142,700 | 14,906 |
| Perch: | | | | |
| White | 617,088 | 31,150 | | |
| Yellow | 223,813 | 10,147 | | |
| Pigfish: | | | | |
| Fresh | 264,272 | 12,675 | | |
| Salted | 3,125 | 63 | | |
| Pike | 20,552 | 1,898 | | |
| Pinfish or sailor's choice | 50,179 | 1,225 | 2,300 | 148 |
| Pompano | 8,685 | 994 | | |
| Porgies | | | 2,000 | 130 |
| Sea bass | 111,650 | 10,928 | 132,000 | 13,200 |
| Shad | 1,657,036 | 376,696 | 167,462 | 29,085 |
| Sharks | | | 20,000 | 175 |
| Sheepshead | 26,223 | 1,839 | 2,100 | 210 |
| Skates | | | 2,000 | 15 |
| Spanish mackerel | 149,440 | 14,270 | | |
| Spot: | | | | |
| Fresh | 1,193,270 | 52,531 | 37,000 | 2,354 |
| Salted | 42,825 | 3,768 | 25,550 | 2,085 |
| Squeteagues or "sea trout": | | | | |
| Fresh | 3,361,246 | 209,483 | 59,150 | 4,846 |
| Salted | 80 | 10 | | |
| Striped bass | 286,528 | 46,030 | | |
| Sturgeon | 6,916 | 974 | 11,225 | 21,136 |
| Sturgeon caviar | 671 | 1,497 | 665 | 889 |

FISHERIES OF THE SOUTH ATLANTIC STATES, 1918—Continued.

| Item. | North Carolina. | | South Carolina. | |
|---|---|---|---|---|
| PRODUCTS—continued. | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| uckers | 16,464 | $680 | | |
| anfish | 123,980 | 1,202 | 3,000 | $180 |
| autog | 150 | 9 | | |
| ellowtail or "silver perch" | 31,278 | 1,379 | 900 | 37 |
| rimp | 940,120 | 23,485 | 55,400 | 6,220 |
| abs: | | | | |
| Hard | 145,605 | 1,983 | 18,000 | 400 |
| Soft | 233,705 | 23,821 | 300 | 75 |
| ams, hard | 197,576 | 46,598 | 800 | 200 |
| ysters, market: | | | | |
| Public | 1,500,534 | 67,380 | 2,631,755 | 83,892 |
| Private | 18,200 | 2,900 | 152,075 | 12,650 |
| allops | 422,832 | 31,618 | | |
| errapin | 210 | 92 | 1,275 | 545 |
| urtles | 8,400 | 77 | | |
| ark hides | 19,125 | 2,868 | | |
| ther aquatic hides | 1,050 | 157 | | |
| Total | 210,501,750 | 2,978,708 | 3,746,932 | 207,690 |

| Item. | Georgia. | | Florida (east coast). | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| n vessels fishing | 186 | | 380 | | 1,964 | |
| n vessels transporting | 2 | | 15 | | 91 | |
| shore fisheries | 476 | | 2,104 | | 8,604 | |
| oresmen | 1,016 | | 831 | | 4,387 | |
| Total | 1,680 | | 3,330 | | 15,046 | |
| INVESTMENT. | | | | | | |
| ssels fishing: | | | | | | |
| Steam | | | | | 15 | $807,315 |
| Tonnage | | | | | 1,791 | |
| Outfit | | | | | | 246,685 |
| Gasoline | 27 | $119,848 | 23 | $377,600 | 108 | 918,163 |
| Tonnage | 499 | | 725 | | 2,556 | |
| Outfit | | 41,416 | | 71,287 | | 281,138 |
| Sail | 5 | 2,315 | | | 86 | 52,010 |
| Tonnage | 44 | | | | 789 | |
| Outfit | | 325 | | | | 14,485 |
| ssels transporting: | | | | | | |
| Gasoline | 1 | 500 | 7 | 32,300 | 40 | 68,400 |
| Tonnage | 9 | | 89 | | 369 | |
| Outfit | | 125 | | 3,850 | | 19,100 |
| Sail | | | | | 12 | 9,700 |
| Tonnage | | | | | 92 | |
| Outfit | | | | | | 4,450 |
| ats: | | | | | | |
| Sail, row, etc. | 313 | 8,805 | 607 | 20,180 | 3,286 | 82,848 |
| Power | 99 | 77,400 | 839 | 459,650 | 2,346 | 827,370 |
| paratus, vessel fisheries: | | | | | | |
| Purse seines | 4 | 4,800 | 25 | 52,900 | 86 | 214,427 |
| Gill nets | | | | | 13 | 800 |
| Lines | | 105 | | | | 255 |
| Otter trawls | 12 | 705 | | | 14 | 805 |
| Dredges | 6 | 300 | | | 92 | 2,955 |
| Tongs and grabs | 42 | 160 | | | 229 | 787 |
| paratus, shore fisheries: | | | | | | |
| Purse seines | | | 2 | 3,000 | 5 | 4,600 |
| Haul seines | 2 | 80 | 115 | 58,030 | 582 | 102,193 |
| Gill nets | 139 | 5,955 | 715 | 101,725 | 15,386 | 233,083 |
| Pound nets | | | | | 3,779 | 355,439 |
| Fyke nets | | | | | 591 | 6,230 |
| Cast nets | 1 | 3 | 16 | 80 | 88 | 238 |
| Stop nets | | | | | 8 | 220 |
| Lines | | 13 | | 2,965 | | 3,826 |
| Otter trawls | 73 | 3,700 | 255 | 16,500 | 357 | 21,250 |
| Eel pots | | | | | 1,585 | 1,329 |
| Dredges | | | | | 550 | 2,648 |
| Tongs, grabs, and rakes | 400 | 1,264 | 37 | 224 | 1,994 | 5,016 |
| Spears or gigs | | | 12 | 12 | 128 | 117 |
| Crab traps and drags | | | 20 | 50 | 133 | 615 |
| Other apparatus | | | | 6 | | 406 |
| re and accessory property | | 429,779 | | 858,720 | | 2,731,918 |
| h capital | | 72,400 | | 151,600 | | 403,150 |
| Total | | 769,998 | | 2,210,679 | | 7,423,971 |

FISHERIES OF THE SOUTH ATLANTIC STATES—Continued.

| Item. | Georgia. | | Florida (east coast). | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value* |
| Alewives: | | | | | | |
| Fresh | | | 692,265 | $10,373 | 9,441,709 | $249,472 |
| Salted | | | | | 5,743,876 | 162,595 |
| Amberfish | | | 11,686 | 390 | 11,686 | 390 |
| Angelfish | | | 2,915 | 91 | 11,890 | 431 |
| Barracuda | | | 2,915 | 97 | 2,915 | 97 |
| Black bass | | | | | 551,125 | 63,137 |
| Bluefish | 5,000 | $900 | 561,301 | 54,715 | 892,045 | 85,567 |
| Blue runner or hardtail | | | 50,750 | 1,542 | 50,750 | 1,542 |
| Bonito | | | 8,141 | 258 | 11,156 | 363 |
| Bowfin | | | | | 34,372 | 319 |
| Butterfish | | | 4,200 | 170 | 736,057 | 25,000 |
| Carp | | | | | 153,169 | 5,619 |
| Catfish | 2,675 | 265 | 13,900 | 278 | 323,984 | 10,434 |
| Cero and Kingfish | 74 | 7 | 2,271,792 | 147,608 | 2,483,647 | 161,562 |
| Cowfish and "shellfish" | | | 50 | 2 | 50 | 2 |
| Crappie | | | | | 5,340 | 568 |
| Crevalle | | | 321,030 | 9,833 | 321,534 | 9,909 |
| Croaker | 5,900 | 255 | 124,278 | 3,447 | 532,985 | 16,676 |
| Drum, red and black | 1,674 | 112 | 900,091 | 24,638 | 1,007,311 | 28,281 |
| Eels | | | | | 174,541 | 13,333 |
| Flounders | 10,800 | 650 | 13,490 | 737 | 131,611 | 9,470 |
| Gizzard shad | | | | | 44,525 | 1,154 |
| Groupers | 27,758 | 1,019 | 74,783 | 3,622 | 102,541 | 4,641 |
| Grunts | 512 | 26 | 113,679 | 3,629 | 129,291 | 4,81[illegible] |
| Hickory shad | 13,007 | 2,035 | | | 191,950 | 17,42[illegible] |
| Hogfish | | | 250 | 11 | 250 | 1[illegible] |
| Jewfish | | | 12,487 | 365 | 12,487 | 36[illegible] |
| King whiting | 27,230 | 1,468 | 297,008 | 15,604 | 364,363 | 21,77[illegible] |
| Ladyfish | | | 1,280 | 13 | 1,280 | 1[illegible] |
| Leatherjacket or "turbot" | | | 370 | 13 | 370 | 1[illegible] |
| Menhaden | 29,484,600 | 88,453 | 48,362,600 | 210,175 | 257,757,799 | 1,605,11[illegible] |
| Moonfish | | | 7,970 | 245 | 7,970 | 24[illegible] |
| Mullet: | | | | | | |
| Fresh | 10,650 | 693 | 10,417,889 | 397,147 | 11,299,268 | 454,79[illegible] |
| Salted | | | | | 458,050 | 53,24[illegible] |
| Parrotfish | | | 3,500 | 70 | 3,500 | 7[illegible] |
| Perch: | | | | | | |
| White | | | | | 617,088 | 31,15[illegible] |
| Yellow | | | | | 223,813 | 10,14[illegible] |
| Permit | | | 7,290 | 244 | 7,290 | 24[illegible] |
| Pigfish: | | | | | | |
| Fresh | | | 14,762 | 451 | 279,034 | 13,12[illegible] |
| Salted | | | | | 3,125 | 6[illegible] |
| Pike | | | | | 20,552 | 1,89[illegible] |
| Pinfish or sailor's choice | | | 442,535 | 13,033 | 495,014 | 14,40[illegible] |
| Pompano | | | 133,419 | 19,889 | 142,104 | 20,88[illegible] |
| Porgies | | | 5,950 | 328 | 7,950 | 45[illegible] |
| Porkfish | | | 1,710 | 57 | 1,710 | 5[illegible] |
| Scup | 12,000 | 900 | | | 12,000 | 90[illegible] |
| Sea bass | 292,615 | 23,765 | 41,331 | 2,699 | 577,596 | 50,59[illegible] |
| Sea gar or needlefish | | | 100 | 5 | 100 | [illegible] |
| Sergeantfish or snook | | | 314,774 | 8,629 | 314,774 | 8,62[illegible] |
| Shad | 100,540 | 26,960 | 963,606 | 135,844 | 2,888,644 | 568,58[illegible] |
| Sharks | 1,289 | 30 | 63,775 | 526 | 85,064 | 73[illegible] |
| Sheepshead | 400 | 25 | 104,303 | 4,115 | 133,026 | 6,18[illegible] |
| Skates | | | | | 2,000 | [illegible] |
| Snapper: | | | | | | |
| Mangrove | | | 23,186 | 975 | 23,186 | 97[illegible] |
| Mutton | | | 241,078 | 7,399 | 241,078 | 7,39[illegible] |
| Red | 112,349 | 7,810 | 20,200 | 2,000 | 132,549 | 9,81[illegible] |
| Spanish mackerel | | | 3,061,965 | 218,085 | 3,211,405 | 232,35[illegible] |
| Spot: | | | | | | |
| Fresh | 1,100 | 59 | 393,030 | 11,998 | 1,624,400 | 66,94[illegible] |
| Salted | | | | | 68,375 | 5,85[illegible] |
| Squeteagues or "sea trout": | | | | | | |
| Fresh | 39,550 | 4,097 | 1,645,223 | 142,091 | 5,105,169 | 360,51[illegible] |
| Salted | | | | | 80 | [illegible] |
| Striped bass | 125 | 10 | | | 286,653 | 46,04[illegible] |
| Sturgeon | 39,150 | 4,700 | | | 163,291 | 26,81[illegible] |
| Sturgeon caviar | | | | | 1,336 | 2,38[illegible] |
| Suckers | | | | | 16,464 | 68[illegible] |
| Sunfish | | | | | 126,980 | 1,3[illegible] |
| Tautog | | | | | 150 | [illegible] |
| Tilefish | 35,000 | 2,400 | | | 35,000 | 2,4[illegible] |
| Yellowtail or "silver perch" | 2,000 | 100 | 43,970 | 1,279 | 78,148 | 2,78[illegible] |
| Shrimp | 5,793,465 | 173,990 | 8,867,918 | 266,651 | 15,656,903 | 470,34[illegible] |
| Crabs: | | | | | | |
| Hard | 8,455 | 504 | 52,000 | 1,800 | [1] 224,060 | 4,68[illegible] |
| Soft | | | | | [2] 234,005 | 23,8[illegible] |
| Sea crawfish or spiny lobster | | | 23,503 | 1,174 | 23,503 | 1,1[illegible] |

[1] 672,180 in number. [2] 702,015 in number.

FISHERIES OF THE SOUTH ATLANTIC STATES—Continued.

| Item. | Georgia. | | Florida (east coast). | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| lams, hard | 120 | $75 | 2,400 | $600 | [1] 200,896 | $47,473 |
| onch meat | | | 7,000 | 700 | 7,000 | 700 |
| ysters, market: | | | | | | |
| Public | 481,530 | 30,884 | 313,425 | 15,134 | [2] 4,927,244 | 197,290 |
| Private | 628,292 | 43,029 | 145,565 | 4,994 | [3] 944,132 | 63,573 |
| callops | | | | | [4] 422,832 | 31,618 |
| ctopus | 2,731 | 268 | | | 2,731 | 268 |
| errapin | 2,112 | 454 | | | 3,597 | 1,091 |
| urtles | 11,250 | 100 | 6,850 | 402 | 26,500 | 579 |
| hark hides | | | | | 19,125 | 2,868 |
| ther aquatic hides | | | | | 1,050 | 157 |
| Total | 37,153,953 | 416,043 | 81,211,488 | 1,746,175 | 332,614,123 | 5,348,616 |

[1] 25,112 bushels. [2] 703,892 bushels. [3] 134,876 bushels. [4] 70,472 bushels.

XTENT OF FISHERIES OF SOUTH ATLANTIC STATES, VARIOUS YEARS, 1880 TO 1918.[1]

| State. | 1880 | 1887 | 1888 | 1889 |
|---|---|---|---|---|
| PERSONS ENGAGED. | | | | |
| orth Carolina | 5,274 | 7,352 | 7,704 | 8,655 |
| outh Carolina | 1,005 | 1,280 | 1,346 | 2,642 |
| eorgia | 899 | 627 | 638 | 1,497 |
| lorida (east coast) | 368 | (2) | 851 | 1,244 |
| Total | 7,546 | (2) | 10,539 | 14,038 |
| INVESTMENT. | | | | |
| orth Carolina | $506,561 | $766,881 | $801,474 | $968,600 |
| outh Carolina | 66,275 | 92,930 | 97,189 | 107,205 |
| eorgia | 78,770 | 61,806 | 65,556 | 120,975 |
| orida (east coast) | 43,554 | (2) | 109,670 | 128,434 |
| Total | 695,160 | (2) | 1,073,889 | 1,325,214 |
| PRODUCTS. | | | | |
| ounds: | | | | |
| North Carolina | 32,249,488 | 45,124,956 | 43,022,855 | 45,545,643 |
| South Carolina | 6,143,250 | 4,075,537 | 4,180,847 | 4,879,125 |
| Georgia | 2,272,500 | 1,882,790 | 1,957,749 | 2,643,533 |
| Florida (east coast) | 2,286,750 | (2) | (2) | 5,982,375 |
| Total | 42,951,988 | (2) | (2) | 59,050,676 |
| alue: | | | | |
| North Carolina | $845,695 | $772,957 | $776,439 | $950,427 |
| South Carolina | 212,482 | 157,688 | 163,657 | 200,381 |
| Georgia | 119,993 | 80,745 | 82,910 | 105,727 |
| Florida (east coast) | 78,408 | (2) | 173,886 | 199,043 |
| Total | 1,256,578 | (2) | 1,196,892 | 1,455,578 |

[1] Statistics for 1908 are from data published by the Bureau of the Census.
[2] Statistics not available.

EXTENT OF FISHERIES OF SOUTH ATLANTIC STATES, VARIOUS YEARS, 1880 TO 1918—Continued.

| State. | 1890 | 1897 | 1902 | 1908 | 1918 |
|---|---|---|---|---|---|
| PERSONS ENGAGED. | | | | | |
| North Carolina | 10,274 | 12,045 | 14,755 | 9,681 | 8,036 |
| South Carolina | 2,701 | 2,139 | 3,713 | 2,559 | 2,000 |
| Georgia | 1,622 | 1,869 | 2,286 | 2,525 | 1,680 |
| Florida (east coast) | 1,404 | 1,132 | 2,698 | 3,196 | 3,330 |
| Total | 16,001 | 17,185 | 23,452 | [1] 17,961 | 15,046 |
| INVESTMENT. | | | | | |
| North Carolina | $1,243,988 | $1,218,459 | $1,973,441 | $1,270,000 | $4,222,043 |
| South Carolina | 127,762 | 174,354 | 320,723 | 114,000 | 221,251 |
| Georgia | 174,431 | 284,864 | 342,150 | 409,000 | 769,998 |
| Florida (east coast) | 142,105 | 151,155 | 354,835 | 531,000 | 2,210,679 |
| Total | 1,688,286 | 1,828,832 | 2,991,149 | [1] 2,324,000 | 7,423,971 |
| PRODUCTS. | | | | | |
| Pounds: | | | | | |
| North Carolina | 51,799,142 | 64,234,257 | 67,584,734 | 101,422,000 | 210,501,750 |
| South Carolina | 4,944,840 | 5,280,446 | 8,174,463 | 14,104,000 | 3,746,932 |
| Georgia | 2,994,117 | 4,993,100 | 11,102,610 | 14,828,000 | 37,153,953 |
| Florida (east coast) | 7,463,531 | 5,882,662 | 19,584,265 | 36,521,000 | 81,211,488 |
| Total | 67,201,630 | 80,390,465 | 106,446,072 | 166,875,000 | 332,614,123 |
| Value: | | | | | |
| North Carolina | $1,027,669 | $1,316,017 | $1,739,661 | $1,776,000 | $2,978,708 |
| South Carolina | 202,602 | 210,456 | 263,023 | 288,000 | 207,690 |
| Georgia | 123,563 | 170,605 | 359,081 | 701,000 | 416,043 |
| Florida (east coast) | 219,870 | 136,077 | 477,868 | 1,269,000 | 1,746,175 |
| Total | 1,573,704 | 1,833,155 | 2,839,633 | 4,034,000 | 5,348,616 |

[1] Exclusive of persons and investment in canneries, packing houses, and other establishments.

OYSTER INDUSTRY OF SOUTH ATLANTIC STATES, VARIOUS YEARS, 1880 TO 1918.[1]

| Year. | North Carolina. | | South Carolina. | | Georgia. | | Florida (east coast). | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Bushels.* | *Value.* | *Bushels.* | *Value.* | *Bushels.* | *Value.* | *Bushels.* | *Value.* | *Bushels.* | *Value.* |
| 1880 | 170,000 | $60,000 | 50,000 | $20,000 | 70,000 | $35,000 | 20,000 | $5,000 | 310,000 | $120,000 |
| 1887 | 212,980 | 48,353 | 37,725 | 18,581 | 110,085 | 26,950 | (2) | (2) | (2) | (2) |
| 1888 | 204,703 | 46,129 | 40,242 | 19,146 | 120,600 | 29,370 | 57,750 | 12,950 | 423,295 | 107,595 |
| 1889 | 1,001,620 | 194,272 | 43,620 | 19,890 | 163,200 | 26,684 | 62,356 | 11,123 | 1,270,796 | 251,969 |
| 1890 | 807,260 | 175,567 | 63,150 | 23,204 | 224,355 | 40,520 | 97,350 | 14,850 | 1,192,115 | 254,141 |
| 1895 | (2) | (2) | (2) | (2) | (2) | (2) | 99,434 | 15,415 | (2) | (2) |
| 1897 | 858,818 | 241,099 | 214,900 | 45,360 | 486,634 | 86,709 | 51,829 | 11,766 | 1,612,181 | 384,934 |
| 1902 | 1,022,813 | 268,363 | 689,700 | 118,460 | 1,224,000 | 220,467 | 309,069 | 37,188 | 3,245,582 | 644,478 |
| 1908 | 812,500 | 236,100 | 1,563,000 | 137,000 | 1,459,000 | 338,600 | 529,000 | 108,600 | 4,363,500 | 820,300 |
| 1910 | 332,257 | 63,405 | 710,124 | 94,677 | 505,157 | 170,812 | 153,460 | 35,290 | 1,700,998 | 364,184 |
| 1918 | 216,962 | 70,280 | 397,690 | 96,542 | 158,516 | 73,913 | 65,570 | 20,128 | 838,738 | 260,863 |

[1] Statistics for 1908 are from data published by the Bureau of the Census.
[2] Statistics not available.

## FISHERIES OF NORTH CAROLINA.

The fisheries of North Carolina were more extensive than those of South Carolina, Georgia, and eastern coast of Florida combined in persons engaged, investment, and quantity and value of the products. In 1918 the number of persons employed in the coastal fisheries of this State was 8,036, of whom 1,295 were on vessels fishing, 54 on transporting vessels, 4,903 in the shore or boat fisheries, and 1,784 on shore in the wholesale establishments, canneries, and other fishery industries.

The investment in the fisheries of $4,222,043 includes 118 fishing vessels, valued at $1,249,725, with a net tonnage of 3,437 tons and outfits valued at $422,790; 37 transporting vessels, valued at $34,300, with a net tonnage of 289 tons and outfits valued at $18,225; 3,084 power, sail, row, and other boats valued at $307,773; fishing apparatus employed on vessels to the value of $160,432; fishing apparatus employed in shore or boat fisheries to the value of $522,104; shore and accessory property valued at $1,347,644; and cash capital amounting to $159,050.

The products amounted to 210,501,750 pounds, valued at $2,978,-708. The species of chief importance arranged in order of their value were: Menhaden, 179,910,599 pounds, valued at $1,306,489; alewives, 14,483,820 pounds, valued at $401,219, of which 5,743,876 pounds, valued at $162,595, were salted; shad, 1,657,036 pounds, valued at $376,696; squeteague or "sea trout," 3,361,326 pounds, valued at $209,493; mullet, 1,128,029 pounds, valued at $91,075, of which 315,350 pounds, valued at $38,341, were salted; oysters, 1,518,734 pounds, or 216,962 bushels, valued at $70,280; black bass, 551,125 pounds, valued at $63,137; spot, 1,236,095 pounds, valued at $56,299, of which 42,825 pounds, valued at $3,768, were salted; hard clams, 197,576 pounds, or 24,697 bushels, valued at $46,598; and striped bass, 286,528 pounds, valued at $46,030.

Menhaden represents 85.46 per cent of the total quantity and 43.86 per cent of the total value of the products of the State in 1918. The products of the fisheries exclusive of menhaden for various years follow: 39,388,742 pounds, valued at $1,011,498, in 1890; 52,924,257 pounds, valued at $1,296,317, in 1897; 48,722,734 pounds, valued at $1,708,241, in 1902; 44,010,000 pounds, valued at $1,706,000, in 1908, and 30,591,151 pounds, valued at $1,672,219, in 1918. From the foregoing it will be evident that the trend of production of food fishes is downward and should be a matter of some concern to the State. As indicative of the trend of certain of the important fisheries of the State, the following table gives the comparative production figures for various years:

PRODUCTS OF CERTAIN FISHERIES OF NORTH CAROLINA, VARIOUS YEARS, 1890 TO 1918.

| Species. | 1890 | 1897 | 1902 | 1908 | 1918 |
|---|---|---|---|---|---|
| | *Pounds.* | *Pounds.* | *Pounds.* | *Pounds.* | *Pounds.* |
| Alewives | 16,481,063 | 15,790,437 | 11,172,975 | 10,928,000 | 14,483,820 |
| Bluefish | 1,345,194 | 1,696,175 | 977,142 | 1,256,000 | 322,744 |
| Mullet | 3,585,981 | 3,409,585 | 6,705,492 | 5,070,800 | 1,128,029 |
| Shad | 5,768,413 | 8,963,488 | 6,566,724 | 3,942,000 | 1,657,036 |
| Squeteagues or "sea trout" | 1,885,677 | 3,090,254 | 3,781,456 | 4,635,000 | 3,361,326 |
| Striped bass | 568,341 | 845,123 | 1,175,400 | 510,000 | 286,528 |
| | *Bushels.* | *Bushels.* | *Bushels.* | *Bushels.* | *Bushels.* |
| Clams | 28,269 | 117,226 | 146,897 | 91,000 | 24,697 |
| Oysters | 807,260 | 858,818 | 1,022,813 | 812,500 | 216,962 |

An examination of this table reveals a very marked decline in the catch of bluefish, mullet, shad, striped bass, clams, and oysters, while the fisheries for alewives and squeteagues have fluctuated comparatively little. In 1918 the catch of bluefish amounted to only 25.69 per cent of that in 1908; of mullet, to only 22.25 per cent of the 1908 catch; of shad, to only 42.04 per cent of the catch in 1908, and 25.23 per cent of the catch in 1902; of striped bass, to

only 56.18 per cent of the 1908 catch and 24.38 per cent of the 1902 catch; of clams, to only 27.14 per cent of the 1908 catch and 16.81 per cent of the 1902 catch; and of oysters, to only 26.70 per cent of the 1908 catch and 21.21 per cent of the 1902 catch.

The principal factors affecting the abundance of shad in our Atlantic coast waters appear to be unsatisfactory spawning areas, due to pollution and artificial barriers restricting the movements of the fish in the rivers, and interference with the fish in their migrations to the spawning areas and while on these areas. It is conceivable that, unless these conditions are rectified, the consumer may have to depend on the Pacific coast for these fish at some not far distant date. In North Carolina, while pollution is believed to have been a less significant factor than in some of the other States, interference with the free movement of a sufficient body of the fish to the spawning areas and during the spawning period is considered to be an important factor affecting the supply of fish in the waters, which fish-cultural operations have been unable to wholly counteract. A study of the production figures for striped bass would indicate that the supply of this fish is being depleted. Difficulties in propagation, such as inability to procure ripe fish of both sexes at same time, handicap operations in this field. The decline in the catch of oysters would indicate how important it is for the State to give more serious consideration to the encouragement of oyster farming. In this connection the results of former investigations of the Bureau should prove of interest, notably a document by Dr. Caswell Grave.[10]

### FISHERIES BY COUNTIES.

The statistics as to the number of persons employed, investment, and products of the fisheries of North Carolina in 1918 are given by counties in the appended table. It will be noted that of the catch of sea bass of 111,650 pounds, valued at $10,928, 59,650 pounds, valued at $5,763, are credited to Carteret County. The increase in the catch for this county is directly attributable in large part to the Bureau for its work in locating the small fishing grounds along this section of the coast and for encouragement given to the establishment of an important fishery. Difficulties in marketing the catch at satisfactory prices are reported to have retarded the fullest development of this fishery.

As a result of the Bureau's efforts to develop fisheries for sharks and other unutilized aquatic animals and to encourage the saving of the hides for tanning into leather and the extraction of the liver oil of sharks, etc., 20,175 pounds of the hides of sharks, porpoise, etc., valued at $3,025, and 720 gallons of shark oil, valued at $540, were saved in 1918.

---

[10] Grave, Caswell: Investigations for the Promotion of the Oyster Industry of North America. Report U. S. Commission of Fish and Fisheries, 1903 (1905), p. 247–341, X pl.

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES.

| Item. | Beaufort. | | Bertie. | | Bladen. | | Brunswick. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 12 | | | | | | 59 | |
| On vessels transporting | 18 | | | | | | | |
| In shore fisheries | 236 | | 22 | | 45 | | 301 | |
| Shoresmen | 167 | | 13 | | | | 147 | |
| Total | 433 | | 35 | | 45 | | 507 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: | | | | | | | | |
| Gasoline | | | | | | | 5 | $39,620 |
| Tonnage | | | | | | | 160 | |
| Outfit | | | | | | | | 17,510 |
| Sail | 4 | $2,750 | | | | | | |
| Tonnage | 30 | | | | | | | |
| Outfit | | 950 | | | | | | |
| Vessels transporting: | | | | | | | | |
| Gasoline | 2 | 7,500 | | | | | | |
| Tonnage | 15 | | | | | | | |
| Outfit | | 5,000 | | | | | | |
| Sail | 7 | 7,000 | | | | | | |
| Tonnage | 50 | | | | | | | |
| Outfit | | 3,500 | | | | | | |
| Boats: | | | | | | | | |
| Sail, row, etc. | 74 | 6,195 | 1 | $5 | 23 | $270 | 151 | 2,210 |
| Power | 25 | 6,400 | 7 | 1,600 | | | 17 | 8,450 |
| Apparatus, vessel fisheries: | | | | | | | | |
| Purse seines | | | | | | | 3 | 9,000 |
| Otter trawls | | | | | | | 2 | 100 |
| Dredges | 8 | 160 | | | | | | |
| Apparatus, shore fisheries: | | | | | | | | |
| Haul seines | 15 | 6,700 | | | | | 21 | 1,800 |
| Gill nets | 490 | 903 | | | 22 | 350 | 100 | 2,475 |
| Pound nets | 137 | 10,210 | 73 | 9,585 | | | | |
| Lines | | | | | | | | 1 |
| Otter trawls | | | | | | | 14 | 570 |
| Dredges | 24 | 549 | | | | | | |
| Tongs and rakes | 2 | 6 | | | | | 160 | 268 |
| Eel pots | 250 | 325 | | | | | | |
| Other apparatus | | | | | 1 | 12 | 6 | 90 |
| Shore and accessory property | | 39,975 | | 1,950 | | | | 65,685 |
| Cash capital | | 34,000 | | | | | | 5,800 |
| Total | | 132,123 | | 13,140 | | 632 | | 153,579 |
| PRODUCTS. | | | | | | | | |
| Alewives: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | 326,865 | $6,760 | 211,845 | $4,209 | | | | |
| Salted | | | 216,039 | 5,906 | | | | |
| Black bass | 10,111 | 1,343 | | | | | | |
| Butterfish | 70,009 | 4,128 | | | | | | |
| Catfish | 44,008 | 1,113 | 982 | 20 | | | | |
| Cero and king fish | | | | | | | 3,250 | $178 |
| Croaker | | | | | | | 1,500 | 43 |
| Drum, red and black | | | | | | | 1,500 | 73 |
| Eels | 39,164 | 1,076 | | | | | | |
| Flounders | 5,800 | 348 | | | | | 8,800 | 433 |
| Hickory shad | 16,760 | 1,515 | 628 | 31 | | | | |
| Menhaden | | | | | | | 9,300,000 | 33,325 |
| Mullet: | | | | | | | | |
| Fresh | | | | | | | 28,700 | 2,180 |
| Salted | | | | | | | 213,900 | 25,450 |
| Perch: | | | | | | | | |
| White | 6,630 | 613 | 2,261 | 121 | | | | |
| Yellow | 40,485 | 2,778 | | | | | | |
| Pigfish, fresh | | | | | | | 150 | 9 |
| Pike | 11,013 | 1,032 | | | | | | |
| Pompano | 750 | 60 | | | | | | |
| Sea bass | | | | | | | 1,000 | 70 |
| Shad | 80,057 | 14,270 | 5,366 | 1,182 | 4,077 | $1,165 | 2,050 | 425 |
| Sheepshead | | | | | | | 1,800 | 106 |
| Spot: | | | | | | | | |
| Fresh | 5,148 | 255 | | | | | 11,250 | 587 |
| Salted | | | | | | | 36,700 | 3,370 |
| Squeteagues, or "sea trout," fresh | 314,892 | 10,734 | | | | | 8,600 | 604 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | Beaufort. | | Bertie. | | Bladen. | | Brunswick. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS—continued. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Striped bass | 24,701 | $3,426 | 333 | $50 | | | 1,000 | $100 |
| Suckers | 4,890 | 124 | 131 | 8 | | | | |
| Tautog | | | | | | | 150 | 9 |
| Shrimp | | | | | | | 370,000 | 11,100 |
| Crabs: | | | | | | | | |
| Hard | | | | | | | 650 | 20 |
| Soft | | | | | | | 40 | 10 |
| Turtles | | | | | | | 500 | 13 |
| Clams, hard | | | | | | | 44,000 | 8,350 |
| Oysters, market, public | 65,415 | 4,565 | | | | | 4,725 | 500 |
| Total | 1,066,698 | 54,140 | 437,585 | 11,527 | 4,077 | $1,165 | 10,040,265 | 86,955 |

| Item. | Camden. | | Carteret. | | Chowan. | | Columbus. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | | | 656 | | | | | |
| On vessels transporting | | | 35 | | | | | |
| In shore fisheries | 8 | | 1,251 | | 285 | | 30 | |
| Shoresmen | | | 766 | | 167 | | | |
| Total | 8 | | 2,708 | | 452 | | 30 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: | | | | | | | | |
| Gasoline | | | 49 | $356,150 | | | | |
| Tonnage | | | 1,026 | | | | | |
| Outfit | | | | 142,350 | | | | |
| Sail | | | 26 | 17,500 | | | | |
| Tonnage | | | 232 | | | | | |
| Outfit | | | | 5,145 | | | | |
| Vessels transporting: | | | | | | | | |
| Gasoline | | | 22 | 16,600 | | | | |
| Tonnage | | | 177 | | | | | |
| Outfit | | | | 8,025 | | | | |
| Sail | | | 4 | 2,450 | | | | |
| Tonnage | | | 36 | | | | | |
| Outfit | | | | 925 | | | | |
| Boats: | | | | | | | | |
| Sail, row, etc. | 3 | $45 | 414 | 9,755 | 29 | $1,100 | 15 | $160 |
| Power | 5 | 835 | 461 | 112,875 | 101 | 26,410 | | |
| Apparatus, vessel fisheries: | | | | | | | | |
| Purse seines | | | 38 | 102,600 | | | | |
| Gill nets | | | 13 | 800 | | | | |
| Lines | | | | 50 | | | | |
| Dredges | | | 42 | 1,530 | | | | |
| Tongs | | | 16 | 82 | | | | |
| Apparatus, shore fisheries: | | | | | | | | |
| Haul seines | | | 123 | 3,185 | | | | |
| Purse seines | | | 1 | 1,000 | | | | |
| Gill nets | 82 | 972 | 1,877 | 49,305 | 234 | 6,288 | 15 | 150 |
| Pound nets | | | 268 | 24,750 | 967 | 103,936 | | |
| Fyke nets | 40 | 400 | | | | | | |
| Lines | | | | 230 | | | | |
| Otter trawls | | | 13 | 390 | | | | |
| Dredges | | | 492 | 1,525 | | | | |
| Tongs and rakes | | | 182 | 432 | | | | |
| Eel pots | | | 25 | 35 | | | | |
| Other apparatus | | | 370 | 659 | | | | |
| Shore and accessory property | | | | 543,480 | | 63,405 | | |
| Cash capital | | | | 74,000 | | | | |
| Total | | 2,252 | | 1,475,828 | | 201,089 | | 310 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | | | |
| Fresh | | | 75,636 | $3,774 | 4,747,518 | $98,415 | | |
| Salted | | | | | 3,230,025 | 87,768 | | |
| Angel fish | | | 3,800 | 155 | | | | |
| Bluefish | | | 261,055 | 23,545 | | | | |
| Bonito | | | 3,015 | 107 | | | | |
| Butterfish | | | 71,999 | 4,379 | | | | |
| Catfish | 2,400 | $120 | | | 62,727 | 2,218 | | |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | Camden. | | Carteret. | | Chowan. | | Columbus. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS—continued. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Cero and king fish | | | 151,871 | $10,615 | | | | |
| Crevalle | | | 204 | 11 | | | | |
| Croaker | | | 323,226 | 9,863 | | | | |
| Drum, red and black | | | 32,165 | 1,332 | | | | |
| Eels | | | 1,500 | 150 | 6,860 | $549 | | |
| Flounders | | | 8,175 | 543 | | | | |
| Gizzard shad | | | | | 34,629 | 1,036 | | |
| Hickory shad | | | 23,611 | 1,449 | 58,283 | 5,832 | | |
| Menhaden | | | 90,232,799 | 480,212 | | | | |
| Mullet: | | | | | | | | |
| Fresh | | | 405,855 | 19,804 | | | | |
| Salted | | | 22,500 | 4,000 | | | | |
| Perch, white | 2,300 | $230 | | | 72,890 | 6,333 | | |
| Pigfish, fresh | | | 152,669 | 4,859 | | | | |
| Pike | | | | | 294 | 28 | | |
| Pinfish, or sailor's choice | | | 18,380 | 238 | | | | |
| Pompano | | | 2,768 | 332 | | | | |
| Sea bass | | | 59,650 | 5,763 | | | | |
| Shad | 17,800 | 4,450 | 53,994 | 13,753 | 173,472 | 34,736 | 1,575 | $450 |
| Sheepshead | | | 17,039 | 988 | | | | |
| Spanish mackerel | | | 115,330 | 11,372 | | | | |
| Spot, fresh | | | 792,565 | 30,603 | | | | |
| Squeteagues, or "sea trout," fresh | | | 1,584,096 | 122,323 | | | | |
| Striped bass | | | 995 | 133 | 17,878 | 3,577 | | |
| Sturgeon | | | 540 | 27 | | | | |
| Suckers | | | | | 8,693 | 383 | | |
| Yellowtail | | | 8,108 | 229 | | | | |
| Shrimp | | | 450,120 | 9,385 | | | | |
| Crabs: | | | | | | | | |
| Hard | | | 2,000 | 150 | | | | |
| Soft | | | 233,665 | 23,811 | | | | |
| Terrapin | | | 60 | 57 | | | | |
| Turtles | | | 7,500 | 44 | | | | |
| Clams, hard | | | 47,176 | 8,103 | | | | |
| Oysters, market, public | | | 879,977 | 31,925 | | | | |
| Scallops | | | 415,572 | 30,768 | | | | |
| Shark hides | | | 19,125 | 2,868 | | | | |
| Other aquatic hides | | | 1,050 | 157 | | | | |
| Total | 22,500 | 4,800 | 96,479,790 | 857,827 | 8,413,269 | 240,875 | 1,575 | 450 |

| Item. | Craven. | | Currituck. | | Dare. | | Gates. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | Number. | Value. | Number. | Value. | Number. | Value. | Number. | Value. |
| On vessels fishing | | | | | 7 | | | |
| In shore fisheries | 66 | | 427 | | 762 | | 30 | |
| Shoresmen | 4 | | 20 | | 13 | | | |
| Total | 70 | | 447 | | 782 | | 30 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: | | | | | | | | |
| Sail | | | | | 3 | $1,300 | | |
| Tonnage | | | | | 20 | | | |
| Outfit | | | | | | 450 | | |
| Boats: | | | | | | | | |
| Sail, row, etc. | 47 | $585 | 57 | $700 | 86 | 3,430 | 22 | $265 |
| Power | 20 | 3,075 | 167 | 15,530 | 287 | 41,600 | 4 | 250 |
| Apparatus, vessel fisheries: | | | | | | | | |
| Dredges | | | | | 6 | 30 | | |
| Tongs | | | | | 6 | 18 | | |
| Apparatus, shore fisheries: | | | | | | | | |
| Haul seines | 8 | 850 | 183 | 16,353 | 34 | 4,525 | | |
| Purse seines | | | | | 2 | 600 | | |
| Gill nets | 463 | 1,705 | 296 | 1,879 | 7,814 | 16,131 | 74 | 248 |
| Pound nets | 25 | 750 | 56 | 10,035 | 1,581 | 143,891 | 10 | 390 |
| Fyke nets | | | 455 | 4,550 | | | 15 | 125 |
| Lines | | | | | | 30 | | |
| Tongs and rakes | | | | | 49 | 188 | | |
| Eel pots | 20 | 25 | 1,240 | 879 | | | | |
| Shore and accessory property | | 6,265 | | 4,040 | | 31,488 | | |
| Cash capital | | | | 2,750 | | 2,000 | | |
| Total | | 13,255 | | 56,716 | | 245,681 | | 1,278 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | Craven. | | Currituck. | | Dare. | | Gates. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS. | | | | | | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | | | |
| Fresh | 22,800 | $725 | 142,668 | $4,252 | 777,636 | $36,700 | 73,688 | $1,179 |
| Salted | | | 133,083 | 2,140 | 128,355 | 4,547 | | |
| Angel fish | 50 | 2 | | | | | | |
| Black bass | | | 504,164 | 57,372 | 36,850 | 4,422 | | |
| Bluefish | 700 | 42 | | | 46,944 | 4,674 | | |
| Bowfin | | | 34,372 | 319 | | | | |
| Butterfish | 30,000 | 1,200 | | | 437,473 | 12,345 | | |
| Carp | | | 150,741 | 5,449 | | | | |
| Catfish | 1,200 | 24 | 116,012 | 2,379 | 33,981 | 1,645 | 312 | 25 |
| Cero and king fish | | | 10,960 | 548 | 17,815 | 720 | | |
| Crappie | | | | | | | 340 | 68 |
| Croaker | 3,050 | 77 | 13,600 | 354 | 16,538 | 726 | | |
| Drum, red and black | | | | | 35,566 | 795 | | |
| Eels | 500 | 40 | 112,581 | 10,268 | 8,000 | 680 | | |
| Flounders | 600 | 35 | 4,948 | 330 | 19,567 | 977 | | |
| Gizzard shad | | | 9,371 | 97 | | | | |
| Hickory shad | 16,940 | 990 | | | 7,467 | 684 | | |
| Mullet, fresh | 17,400 | 1,395 | | | | | | |
| Perch: | | | | | | | | |
| White | 3,100 | 282 | 412,040 | 16,296 | 71,659 | 2,874 | | |
| Yellow | | | 156,555 | 6,187 | 23,886 | 958 | 312 | 25 |
| Pigfish: | | | | | | | | |
| Fresh | 200 | 5 | | | 37,428 | 1,661 | | |
| Salted | | | | | 3,125 | 63 | | |
| Pike | | | 9,245 | 838 | | | | |
| Pinfish, or sailor's choice | 3,000 | 50 | | | 22,799 | 337 | | |
| Pompano | 75 | 8 | | | 1,012 | 57 | | |
| Shad | 14,013 | 3,633 | 51,096 | 9,339 | 881,270 | 219,272 | 600 | 120 |
| Sheepshead | | | | | 834 | 60 | | |
| Spanish mackerel | 250 | 200 | | | 27,973 | 2,091 | | |
| Spot: | | | | | | | | |
| Fresh | 19,300 | 989 | | | 49,082 | 2,232 | | |
| Salted | | | | | 3,125 | 63 | | |
| Squeteagues, or "sea trout," fresh | 36,910 | 2,043 | 25,400 | 1,854 | 901,238 | 47,700 | | |
| Striped bass | 6,375 | 565 | 51,367 | 7,149 | 148,740 | 23,136 | | |
| Sturgeon | | | | | 2,876 | 527 | | |
| Sturgeon caviar | | | | | 661 | 1,487 | | |
| Sunfish | | | 123,980 | 1,202 | | | | |
| Crabs, hard | | | | | 142,290 | 1,778 | | |
| Clams, hard | | | | | 6,400 | 1,200 | | |
| Oysters, market, public | | | | | 60,900 | 4,350 | | |
| Total | 176,463 | 12,305 | 2,062,183 | 126,373 | 3,951,490 | 378,761 | 75,252 | 1,417 |

| Item. | Halifax. | | Hertford. | | Hyde. | | Martin. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | | | | | 2 | | | |
| In shore fisheries | 39 | | 29 | | 145 | | 18 | |
| Shoresmen | | | 2 | | | | | |
| Total | 39 | | 31 | | 147 | | 18 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: | | | | | | | | |
| Sail | | | | | 1 | $400 | | |
| Tonnage | | | | | 7 | | | |
| Outfit | | | | | | 150 | | |
| Boats: | | | | | | | | |
| Sail, row, etc. | 4 | $50 | 11 | $114 | 26 | 1,245 | 3 | $75 |
| Power | 19 | 1,170 | 4 | 975 | 55 | 11,295 | | |
| Apparatus, vessel fisheries, dredges | | | | | 2 | 60 | | |
| Apparatus, shore fisheries: | | | | | | | | |
| Haul seines | | | 1 | 200 | 1 | 75 | 3 | 500 |
| Gill nets | | | 50 | 253 | 1,684 | 3,028 | | |
| Pound nets | | | 37 | 2,450 | 233 | 22,425 | | |
| Dredges | | | | | 2 | 40 | | |
| Tongs and rakes | | | | | 78 | 310 | | |
| Other apparatus | 47 | 275 | | | | | | |
| Shore and accessory property | | | | 125 | | 1,665 | | |
| Total | | 1,495 | | 4,117 | | 40,693 | | 575 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | Halifax. | | Hertford. | | Hyde. | | Martin. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Alewives: | | | | | | | | |
| Fresh | | | 216,875 | $5,205 | 87,706 | $3,054 | 30,000 | $1,500 |
| Salted | | | | | | | 25,000 | 1,200 |
| Angel fish | | | | | 5,125 | 183 | | |
| Bluefish | | | | | 7,495 | 848 | | |
| Butterfish | | | | | 39,626 | 978 | | |
| Catfish | | | | | 2,560 | 64 | 630 | 38 |
| Cero and kingfish | | | | | 3,335 | 119 | | |
| Croaker | | | | | 1,993 | 43 | | |
| Drum, red and black | | | | | 1,350 | 14 | | |
| Eels | | | | | 333 | 10 | | |
| Flounders | | | | | 10,781 | 394 | | |
| Hickory shad | | | | | 15,112 | 730 | | |
| Mullet, salted | | | | | 650 | 169 | | |
| Perch: | | | | | | | | |
| White | | | 1,584 | 96 | 3,078 | 277 | 1,000 | 80 |
| Yellow | | | | | 700 | 49 | | |
| Pigfish, fresh | | | | | 3,125 | 95 | | |
| Pompano | | | | | 1,280 | 92 | | |
| Shad | | | 250 | 50 | 109,827 | 18,396 | | |
| Spanish mackerel | | | | | 2,987 | 242 | | |
| Spot, fresh | | | | | 3,325 | 150 | | |
| Squeteagues, or "sea trout," fresh | | | | | 149,964 | 4,987 | | |
| Striped bass | 6,635 | $2,770 | | | 10,829 | 1,509 | | |
| Oysters, market, public | | | | | 38,500 | 2,200 | | |
| Total | 6,635 | 2,770 | 218,709 | 5,351 | 499,681 | 34,603 | 56,630 | 2,818 |

| Item. | New Hanover. | | Onslow. | | Pamlico. | | Pasquotank and Perquimans. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | Number. | Value. | Number. | Value. | Number. | Value. | Number. | Value. |
| On vessels fishing | 513 | | | | 46 | | | |
| On vessels transporting | | | | | 1 | | | |
| In shore fisheries | 238 | | 318 | | 97 | | 47 | |
| Shoresmen | 322 | | 35 | | 64 | | 11 | |
| Total | 1,073 | | 353 | | 208 | | 58 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: | | | | | | | | |
| Steam | 15 | $807,315 | | | | | | |
| Tonnage | 1,791 | | | | | | | |
| Outfit | | 246,685 | | | | | | |
| Gasoline | 1 | 17,940 | | | | | | |
| Tonnage | 72 | | | | | | | |
| Outfit | | 6,500 | | | | | | |
| Sail | | | | | 14 | $6,750 | | |
| Tonnage | | | | | 99 | | | |
| Outfit | | | | | | 3,050 | | |
| Vessels transporting: | | | | | | | | |
| Gasoline | | | | | 1 | 500 | | |
| Tonnage | | | | | 5 | | | |
| Outfit | | | | | | 750 | | |
| Sail | | | 1 | $250 | | | | |
| Tonnage | | | 6 | | | | | |
| Outfit | | | | 25 | | | | |
| Boats: | | | | | | | | |
| Sail, row, etc. | 157 | 2,600 | 298 | 4,935 | 55 | 1,665 | 13 | $23[illegible] |
| Power | 15 | 3,900 | 40 | 13,775 | 39 | 7,200 | 15 | 3,220 |
| Apparatus, vessel fisheries: | | | | | | | | |
| Purse seines | 16 | 45,127 | | | | | | |
| Dredges | | | | | 28 | 875 | | |
| Apparatus, shore fisheries: | | | | | | | | |
| Haul seines | 22 | 1,180 | 18 | 1,780 | | | | |
| Gill nets | 77 | 3,045 | 411 | 9,850 | 35 | 1,100 | 206 | 4,060 |
| Pound nets | | | | | 70 | 3,375 | 81 | 3,610 |
| Fyke nets | | | | | | | 3 | 20 |
| Lines | | 50 | | 2 | | | | |
| Dredges | | | 14 | 84 | 18 | 450 | | |
| Tongs and rakes | 175 | 100 | 117 | 411 | 35 | 205 | | |
| Eel pots | | | 50 | 65 | | | | |
| Other apparatus | 25 | 23 | 14 | 14 | | | | |
| Shore and accessory property | | 560,336 | | 6,505 | | 6,410 | | 13,000 |
| Cash capital | | 25,000 | | 2,000 | | 2,500 | | 11,000 |
| Total | | 1,719,801 | | 39,696 | | 34,830 | | 35,145 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | New Hanover. | | Onslow. | | Pamlico. | | Pasquotank and Perquimans. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS. | | | | | | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | | | |
| Fresh | 15,000 | $1,200 | 177,507 | $6,250 | 3,750 | $125 | 150,000 | $3,000 |
| Salted | | | | | | | 39,000 | 390 |
| Bluefish | 500 | 62 | 5,400 | 455 | | | | |
| Butterfish | | | 1,000 | 100 | 81,150 | 1,655 | | |
| Catfish | 18,000 | 990 | | | | | | |
| Cero and king fish | 2,000 | 249 | 22,250 | 1,495 | | | | |
| Crappie | | | | | | | 300 | 30 |
| Croaker | | | 13,350 | 352 | 6,250 | 150 | | |
| Drum, red and black | 8,000 | 480 | 3,000 | 22 | 11,665 | 110 | | |
| Eels | | | 3,293 | 329 | | | | |
| Flounders | 10,300 | 1,545 | 4,300 | 335 | | | | |
| Grunts | 15,000 | 1,150 | | | | | | |
| Hickory shad | 5,000 | 400 | | | | | | |
| Menhaden | 80,377,800 | 792,952 | | | | | | |
| Mullet: | | | | | | | | |
| Fresh | 32,000 | 2,750 | 193,024 | 14,955 | 4,000 | 400 | | |
| Salted | | | 47,000 | 5,232 | 5,800 | 800 | | |
| Perch, yellow | | | | | | | 1,875 | 150 |
| Pigfish, fresh | 48,000 | 4,800 | 12,000 | 425 | | | | |
| Pinfish, or sailor's choice | 6,000 | 600 | | | | | | |
| Pompano | 2,300 | 345 | 500 | 100 | | | | |
| Sea bass | 50,000 | 5,000 | 200 | 25 | | | | |
| Shad | 38,600 | 11,275 | | | 20,250 | 3,750 | 134,600 | 26,920 |
| Sheepshead | 5,000 | 600 | 700 | 35 | 850 | 50 | | |
| Spanish mackerel | 1,500 | 225 | 300 | 30 | 1,100 | 110 | | |
| Spot, fresh | 31,000 | 2,350 | 77,050 | 3,865 | 1,250 | 50 | | |
| Squeteagues, or "sea trout": | | | | | | | | |
| Fresh | 13,500 | 1,765 | 103,896 | 9,258 | 198,950 | 5,445 | | |
| Salted | | | | | 80 | 10 | | |
| Striped bass | | | | | | | 9,250 | 1,850 |
| Sturgeon | 3,500 | 420 | | | | | | |
| Sturgeon caviar | 10 | 10 | | | | | | |
| Yellowtail | 3,000 | 180 | | | 170 | 5 | | |
| Shrimp | 120,000 | 3,000 | | | | | | |
| Crabs, hard | 665 | 35 | | | | | | |
| Terrapin | | | 150 | 35 | | | | |
| Turtles | 400 | 20 | | | | | | |
| Clams, hard | 48,000 | 14,500 | 16,890 | 4,645 | | | | |
| Oysters, market: | | | | | | | | |
| Public | 10,500 | 600 | 24,150 | 3,750 | 402,367 | 18,490 | | |
| Private | | | 14,700 | 2,500 | 3,500 | 400 | | |
| Scallops | | | 7,250 | 850 | | | | |
| Total | 80,865,575 | 847,503 | 727,830 | 55,043 | 741,132 | 31,550 | 335,025 | 32,340 |

| Item. | Pender. | | Tyrrell. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | | | | | | | 1,295 | |
| On vessels transporting | | | | | | | 54 | |
| In shore fisheries | 264 | | 89 | | 156 | | 4,903 | |
| Shoresmen | | | 26 | | 27 | | 1,784 | |
| Total | 264 | | 115 | | 183 | | 8,036 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: | | | | | | | | |
| Steam | | | | | | | 15 | $807,315 |
| Tonnage | | | | | | | 1,791 | |
| Outfit | | | | | | | | 246,685 |
| Gasoline | | | | | | | 55 | 413,710 |
| Tonnage | | | | | | | 1,258 | |
| Outfit | | | | | | | | 166,360 |
| Sail | | | | | | | 48 | 28,700 |
| Tonnage | | | | | | | 388 | |
| Outfit | | | | | | | | 9,745 |
| Vessels transporting: | | | | | | | | |
| Gasoline | | | | | | | 25 | 24,600 |
| Tonnage | | | | | | | 197 | |
| Outfit | | | | | | | | 13,775 |
| Sail | | | | | | | 12 | 9,700 |
| Tonnage | | | | | | | 92 | |
| Outfit | | | | | | | | 4,450 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | Pender. | | Tyrrell. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| INVESTMENT—continued. | | | | | | | | |
| Boats: | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Sail, row, etc. | 182 | $1,350 | 14 | $237 | 42 | $827 | 1,727 | 38,053 |
| Power | 3 | 600 | 37 | 4,915 | 36 | 5,645 | 1,357 | 269,720 |
| Apparatus, vessel fisheries: | | | | | | | | |
| Purse seines | | | | | | | 57 | 156,727 |
| Gill nets | | | | | | | 13 | 800 |
| Lines | | | | | | | | 50 |
| Otter trawls | | | | | | | 2 | 100 |
| Dredges | | | | | | | 86 | 2,655 |
| Tongs | | | | | | | 22 | 100 |
| Apparatus, shore fisheries: | | | | | | | | |
| Haul seines | 8 | 985 | | | 3 | 3,400 | 440 | 41,533 |
| Purse seines | | | | | | | 3 | 1,600 |
| Gill nets | 34 | 830 | 164 | 1,680 | 174 | 4,676 | 14,299 | 108,878 |
| Pound nets | | | 116 | 9,527 | 125 | 10,505 | 3,779 | 355,439 |
| Fyke nets | | | 70 | 1,005 | 8 | 130 | 591 | 6,230 |
| Lines | | 20 | | | | | | 333 |
| Otter trawls | | | | | | | 27 | 960 |
| Dredges | | | | | | | 550 | 2,648 |
| Tongs and rakes | 210 | 126 | | | | | 1,008 | 2,046 |
| Eel pots | | | | | | | 1,585 | 1,329 |
| Other apparatus | 30 | 30 | | | 3 | 5 | 496 | 1,108 |
| Shore and accessory property | | 2,100 | | 1,215 | | | | 1,347,644 |
| Cash capital | | | | | | | | 159,050 |
| Total | | 6,041 | | 18,579 | | 25,188 | | 4,222,043 |
| PRODUCTS. | | | | | | | | |
| Alewives: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | | | 762,350 | $10,417 | 918,100 | $51,859 | 8,739,944 | $238,624 |
| Salted | | | 1,151,383 | 27,623 | 820,991 | 33,021 | 5,743,876 | 162,595 |
| Angel fish | | | | | | | 8,975 | 340 |
| Black bass | | | | | | | 551,125 | 63,137 |
| Bluefish | 650 | $51 | | | | | 322,744 | 29,677 |
| Bonito | | | | | | | 3,015 | 107 |
| Bowfin | | | | | | | 34,372 | 319 |
| Butterfish | | | | | | | 731,257 | 24,785 |
| Carp | | | | | 2,428 | 170 | 153,169 | 5,619 |
| Catfish | 1,000 | 30 | 6,350 | 381 | 14,347 | 736 | 304,509 | 9,783 |
| Cero and king fish | 300 | 23 | | | | | 211,781 | 13,947 |
| Crappie | | | 4,700 | 470 | | | 5,340 | 568 |
| Crevalle | | | | | | | 204 | 11 |
| Croaker | 7,300 | 304 | | | | | 386,807 | 11,912 |
| Drum, red and black | 6,300 | 420 | | | | | 99,546 | 3,246 |
| Eels | | | | | 2,310 | 231 | 174,541 | 13,333 |
| Flounders | 17,200 | 2,030 | | | 650 | 52 | 91,121 | 7,022 |
| Gizzard shad | | | | | 525 | 21 | 44,525 | 1,154 |
| Grunts | | | | | | | 15,000 | 1,150 |
| Hickory shad | | | | | 14,642 | 1,757 | 158,443 | 13,388 |
| Menhaden | | | | | | | 179,910,599 | 1,306,489 |
| Mullet: | | | | | | | | |
| Fresh | 131,700 | 11,250 | | | | | 812,679 | 52,734 |
| Salted | 25,500 | 2,690 | | | | | 315,350 | 38,341 |
| Perch: | | | | | | | | |
| White | | | 8,896 | 838 | 31,650 | 3,110 | 617,088 | 31,150 |
| Yellow | | | | | | | 223,813 | 10,147 |
| Pigfish: | | | | | | | | |
| Fresh | 10,700 | 821 | | | | | 264,272 | 12,675 |
| Salted | | | | | | | 3,125 | 63 |
| Pike | | | | | | | 20,552 | 1,898 |
| Pinfish, or sailor's choice | | | | | | | 50,179 | 1,225 |
| Pompano | | | | | | | 8,685 | 994 |
| Sea bass | 800 | 70 | | | | | 111,650 | 10,928 |
| Shad | 1,000 | 275 | 1,750 | 350 | 65,389 | 12,885 | 1,657,036 | 376,696 |
| Sheepshead | | | | | | | 26,223 | 1,839 |
| Spanish mackerel | | | | | | | 149,440 | 14,270 |
| Spot: | | | | | | | | |
| Fresh | 203,300 | 11,450 | | | | | 1,193,270 | 52,531 |
| Salted | 3,000 | 335 | | | | | 42,825 | 3,768 |
| Squeteagues, or "sea trout": | | | | | | | | |
| Fresh | 23,800 | 2,770 | | | | | 3,361,246 | 209,483 |
| Salted | | | | | | | 80 | 10 |
| Striped bass | | | 1,975 | 475 | 6,450 | 1,290 | 286,528 | 46,030 |
| Sturgeon | | | | | | | 6,916 | 974 |
| Sturgeon caviar | | | | | | | 671 | 1,497 |
| Suckers | | | | | 2,750 | 165 | 16,464 | 680 |
| Sunfish | | | | | | | 123,980 | 1,202 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | Pender. | | Tyrrell. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS—continued. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Tautog | | | | | | | 150 | $9 |
| Yellowtail | 20,000 | $965 | | | | | 31,278 | 1,379 |
| Shrimp | | | | | | | 940,120 | 23,485 |
| Crabs: | | | | | | | | |
| Hard | | | | | | | [1] 145,605 | 1,983 |
| Soft | | | | | | | [2] 233,705 | 23,821 |
| Terrapin | | | | | | | 210 | 92 |
| Turtles | | | | | | | 8,400 | 77 |
| Clams, hard | 35,200 | 9,800 | | | | | [3] 197,576 | 46,598 |
| Oysters, market: | | | | | | | | |
| Public | 14,000 | 1,000 | | | | | [4] 1,500,534 | 67,380 |
| Private | | | | | | | [5] 18,200 | 2,900 |
| Scallops | | | | | | | [6] 422,832 | 31,618 |
| Shark hides | | | | | | | 19,125 | 2,868 |
| Other aquatic hides | | | | | | | 1,050 | 157 |
| Total | 501,750 | 44,284 | 1,937,404 | $40,554 | 1,880,232 | $105,297 | 210,501,750 | 2,978,708 |

[1] 436,815 in number.
[2] 701,115 in number.
[3] 24,697 bushels.
[4] 214,362 bushels.
[5] 2,600 bushels.
[6] 70,472 bushels.

FISHERIES BY APPARATUS.

In the vessel fisheries of North Carolina, in which seven counties are represented, the forms of apparatus in use included purse seines, gill nets, lines, otter trawls, oyster dredges, and oyster tongs. The total yield from all forms of apparatus used on vessels was 179,072,191 pounds, valued at $1,355,684. The catch with purse seines amounted to 178,101,814 pounds, valued at $1,305,057, of which 177,868,599 pounds, valued at $1,297,582, were menhaden. Other of the more important species taken in purse seines included mullet, 71,165 pounds, valued at $2,630; croakers, 57,000 pounds, valued at $1,765; and spots, 69,300 pounds, valued at $1,385. Gill-net fishing yielded 83,300 pounds of fish, chiefly squeteague, croaker, kingfish, and bluefish, valued at $6,265, and was prosecuted only from vessels operating in Carteret County. The catch of sea bass with lines was 47,500 pounds, valued at $4,725. Shrimp were taken with otter trawls to the amount of 10,000 pounds, valued at $300; oysters with dredges, 725,218 pounds, or 103,603 bushels, valued at $34,912; and oysters with tongs, 104,359 pounds, or 14,908 bushels, valued at $4,425.

In the shore or boat fisheries pound nets were the most productive form of apparatus, the catch amounting to 16,233,529 pounds, valued at $683,292. The catch of alewives in pound nets amounted to 12,254,728 pounds, valued at $301,577, or 75 per cent in quantity and 44 per cent in value of the total take by this form of gear. Other species of importance were squeteagues, shad, and butterfish. The catch with seines in the shore fisheries amounted to 6,028,340 pounds, valued at $340,795, of which 5,605,300 pounds, valued at $332,938, were taken in haul seines, the remainder being credited to purse seines. Among the more important species taken in haul seines were alewives, 1,589,037 pounds, valued at $66,825; black bass, 533,364 pounds, valued at $60,977; and mullet, 667,065 pounds, valued at $53,559. The yield by gill nets, which was slightly less in quantity and exceeded in value that of seines, amounted to 5,995,917

pounds, valued at $386,224. The principal varieties in the order of their value were shad, squeteague, mullet, and spot. The take with tongs, rakes, and hands totaled 767,262 pounds, valued at $72,455, and with the exception of an incidental catch of scallops and terrapin was made up of oysters and clams. Various species were taken with scoop, dip, and bow nets, amounting to 364,383 pounds, valued at $34,046; with lines, amounting to 386,010 pounds, valued at $23,258; with fyke nets, amounting to 283,629 pounds, valued at $11,375; and by stop nets, amounting to 10,840 pounds, valued at $605. The catch with otter trawls, confined almost entirely to shrimp, was 592,580 pounds, valued at $15,149; of scallops and oysters with dredges, 542,363 pounds, valued at $36,761; of eels with pots, 161,046 pounds, valued at $12,309; of soft crabs with drags, 38,660 pounds, valued at $3,725, and of flounders with gigs, 25,000 pounds, valued at $3,030. The total yield from all forms of apparatus used in the shore or boat fisheries was 31,429,559 pounds, valued at $1,623,024. The products of the vessel and shore fisheries are shown separately by counties in the appended tables.

YIELD OF VESSEL FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES, APPARATUS, AND SPECIES.

| Apparatus and species. | Beaufort. | | Brunswick. | | Carteret. | | Dare. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: | | | | | | | | |
| Bluefish | | | | | 4,100 | $240 | | |
| Butterfish | | | | | 1,750 | 70 | | |
| Croaker | | | | | 57,000 | 1,765 | | |
| Drum | | | | | 650 | 25 | | |
| Kingfish | | | | | 250 | 10 | | |
| Menhaden | | | 9,300,000 | $33,325 | 88,190,799 | 471,305 | | |
| Mullet | | | | | 71,165 | 2,630 | | |
| Spanish mackerel | | | | | 500 | 50 | | |
| Spots | | | | | 69,300 | 1,385 | | |
| Squeteague | | | | | 28,500 | 1,300 | | |
| Total | | | 9,300,000 | 33,325 | 88,424,014 | 478,780 | | |
| Gill nets: | | | | | | | | |
| Bluefish | | | | | 4,800 | 415 | | |
| Butterfish | | | | | 1,200 | 60 | | |
| Croaker | | | | | 13,000 | 420 | | |
| Kingfish | | | | | 8,700 | 502 | | |
| Pigfish | | | | | 2,600 | 83 | | |
| Spots | | | | | 1,000 | 30 | | |
| Squeteague | | | | | 52,000 | 4,755 | | |
| Total | | | | | 83,300 | 6,265 | | |
| Lines: Sea bass | | | | | 47,500 | 4,725 | | |
| Otter trawls: Shrimp | | | 10,000 | 300 | | | | |
| Dredges: Oysters, market, public | 43,610 | $3,300 | | | 420,175 | 18,702 | 10,000 | $750 |
| Tongs: Oysters, market, public | | | | | 93,359 | 3,675 | 11,000 | 750 |
| Grand total | 43,610 | 3,300 | 9,310,000 | 33,625 | 89,068,348 | 512,147 | 21,000 | 1,500 |

YIELD OF VESSEL FISHERIES OF NORTH CAROLINA IN 1918, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Hyde. | | New Hanover. | | Pamlico. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: | | | | | | | | |
| Bluefish | | | | | | | 4,100 | $240 |
| Butterfish | | | | | | | 1,750 | 70 |
| Croaker | | | | | | | 57,000 | 1,765 |
| Drum | | | | | | | 650 | 25 |
| Kingfish | | | | | | | 250 | 10 |
| Menhaden | | | 80,377,800 | $792,952 | | | 177,868,599 | 1,297,582 |
| Mullet | | | | | | | 71,165 | 2,630 |
| Spanish mackerel | | | | | | | 500 | 50 |
| Spots | | | | | | | 69,300 | 1,385 |
| Squeteague | | | | | | | 28,500 | 1,300 |
| Total | | | 80,377,800 | 792,952 | | | 178,101,814 | 1,305,057 |
| Gill nets: | | | | | | | | |
| Bluefish | | | | | | | 4,800 | 415 |
| Butterfish | | | | | | | 1,200 | 60 |
| Croaker | | | | | | | 13,000 | 420 |
| Kingfish | | | | | | | 8,700 | 502 |
| Pigfish | | | | | | | 2,600 | 83 |
| Spots | | | | | | | 1,000 | 30 |
| Squeteague | | | | | | | 52,000 | 4,755 |
| Total | | | | | | | 83,300 | 6,265 |
| Lines: Sea bass | | | | | | | 47,500 | 4,725 |
| Otter trawls: Shrimp | | | | | | | 10,000 | 300 |
| Dredges: Oysters, market, public | 7,000 | $500 | | | 244,433 | $11,660 | 725,218 | 34,912 |
| Tongs: Oysters, market, public | | | | | | | 104,359 | 4,425 |
| Grand total | 7,000 | 500 | 80,377,800 | 792,952 | 244,433 | 11,660 | 179,072,191 | 1,355,684 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES.

BY SEINES.

| Apparatus and species. | Beaufort. | | Brunswick. | | Carteret. | | Currituck. | | Craven. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: | | | | | | | | | | |
| Menhaden | | | | | 300,000 | $1,500 | | | | |
| Shrimp | | | | | 105,040 | 1,857 | | | | |
| Total | | | | | 405,040 | 3,357 | | | | |
| Haul seines: | | | | | | | | | | |
| Alewives— | | | | | | | | | | |
| Fresh | 137,365 | $2,970 | | | | | 86,653 | $1,835 | 22,600 | $715 |
| Salted | | | | | | | 121,000 | 1,694 | | |
| Black bass | 10,111 | 1,343 | | | | | 490,089 | 55,654 | | |
| Bluefish | | | | | 7,400 | $632 | | | 700 | 42 |
| Bowfin | | | | | | | 25,979 | 242 | | |
| Butterfish | | | | | 2,850 | 117 | | | | |
| Carp | | | | | | | 123,472 | 4,631 | | |
| Catfish | 37,608 | 953 | | | | | 72,661 | 1,476 | | |
| Croaker | | | | | 36,325 | 1,093 | 13,600 | 354 | 2,700 | 60 |
| Drum | | | | | 19,265 | 950 | | | | |
| Eels | 1,512 | 45 | | | | | | | | |
| Flounders | | | | | 825 | 57 | 1,600 | 80 | 250 | 16 |
| Gizzard shad | | | | | | | 9,371 | 97 | | |
| Hickory shad | 14,060 | 1,272 | | | | | | | 5,000 | 250 |
| Kingfish | | | | | 38,700 | 2,767 | 10,960 | 548 | | |
| Mullet— | | | | | | | | | | |
| Fresh | | | 21,200 | $1,700 | 267,465 | 13,009 | | | | |
| Salted | | | 163,900 | 19,450 | | | | | | |
| Perch, white | 3,845 | 356 | | | | | 303,514 | 11,927 | 1,400 | 112 |
| Perch, yellow | 38,728 | 2,655 | | | | | 101,753 | 3,986 | | |
| Pigfish | | | | | 13,419 | 333 | | | 200 | 5 |
| Pike | 11,013 | 1,032 | | | | | 4,467 | 409 | | |
| Pinfish | | | | | 5,000 | 88 | | | 3,000 | 50 |
| Pompano | | | | | 790 | 95 | | | 50 | 6 |
| Shad | 26,600 | 4,787 | | | | | 24,000 | 4,000 | 2,060 | 535 |
| Sheepshead | | | | | 6,325 | 355 | | | | |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY SEINES—Continued.

| Apparatus and species. | Beaufort. | | Brunswick. | | Carteret. | | Currituck. | | Craven. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Haul seines—Con. | | | | | | | | | | |
| Spanish mackerel | | | | | 4,405 | $445 | | | | |
| Spot— | | | | | | | | | | |
| Fresh | 5,148 | $255 | 4,600 | $360 | 181,870 | 6,835 | | | 14,500 | $780 |
| Salted | | | 21,700 | 2,170 | | | | | | |
| Squeteague | 164,283 | 5,822 | 100 | 10 | 52,250 | 3,427 | 25,400 | $1,854 | 16,000 | 1,160 |
| Striped bass | 5,894 | 793 | | | | | 15,111 | 1,533 | 5,500 | 440 |
| Suckers | 4,890 | 124 | | | | | | | | |
| Sunfish | | | | | | | | | | |
| Yellowtail | | | | | | | 104,422 | 1,026 | | |
| Crabs, soft | | | | | 1,500 | 42 | | | | |
| Shrimp | | | | | 90,009 | 9,020 | | | | |
| Turtles | | | | | 117,000 | 3,254 | | | | |
| | | | | | 2,000 | 11 | | | | |
| Total | 461,057 | 22,407 | 211,500 | 23,690 | 847,398 | 42,530 | 1,534,052 | 91,346 | 73,960 | 4,171 |
| Total, by seines | 461,057 | 22,407 | 211,500 | 23,690 | 1,252,438 | 45,887 | 1,534,052 | 91,346 | 73,960 | 4,171 |

| Apparatus and species. | Dare. | | Hertford. | | Hyde. | | Martin. | | Onslow. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: Striped bass | 18,000 | $4,500 | | | | | | | | |
| Haul seines: | | | | | | | | | | |
| Alewives— | | | | | | | | | | |
| Fresh | | | 54,219 | $1,301 | | | 30,000 | $1,500 | | |
| Salted | | | | | | | 25,000 | 1,200 | | |
| Black bass | 33,164 | $3,980 | | | | | | | | |
| Bluefish | 31,944 | 3,474 | | | 835 | $100 | | | 2,000 | $175 |
| Butterfish | | | | | | | | | 1,000 | 100 |
| Catfish | 900 | 14 | | | | | 630 | 38 | | |
| Croaker | 11,151 | 540 | | | | | | | 4,300 | 122 |
| Drum | 19,066 | 585 | | | | | | | 3,000 | 22 |
| Flounders | | | | | | | | | 300 | 25 |
| Kingfish | 6,000 | 300 | | | | | | | 4,000 | 275 |
| Mullet— | | | | | | | | | | |
| Fresh | | | | | | | | | 36,000 | 2,490 |
| Salted | | | | | | | | | 35,500 | 3,970 |
| Perch, white | 41,958 | 1,679 | 792 | 48 | | | 1,000 | 80 | | |
| Perch, yellow | 13,986 | 559 | | | | | | | | |
| Pigfish | 22,428 | 1,061 | | | 375 | 15 | | | 3,000 | 75 |
| Pinfish | 22,049 | 322 | | | | | | | | |
| Pompano | 808 | 45 | | | | | | | 500 | 100 |
| Shad | | | 125 | 25 | | | | | | |
| Sheepshead | 120 | 10 | | | | | | | 400 | 20 |
| Spanish mackerel | 5,100 | 280 | | | | | | | 300 | 30 |
| Spot—Fresh | 33,453 | 1,620 | | | 375 | 15 | | | 21,800 | 605 |
| Squeteague | 315,620 | 26,645 | | | 2,300 | 225 | | | 9,400 | 660 |
| Striped bass | 5,168 | 469 | | | | | | | | |
| Total | 562,915 | 41,583 | 55,136 | 1,374 | 3,885 | 355 | 56,630 | 2,818 | 121,500 | 8,669 |
| Total, by seines | 580,915 | 46,083 | 55,136 | 1,374 | 3,885 | 355 | 56,630 | 2,818 | 121,500 | 8,669 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY SEINES—Continued.

| Apparatus and species. | New Hanover. | | Pender. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: | | | | | | | | |
| Menhaden | | | | | | | 300,000 | $1,500 |
| Striped bass | | | | | | | 18,000 | 4,500 |
| Shrimp | | | | | | | 105,040 | 1,857 |
| Total | | | | | | | 423,040 | 7,857 |
| Haul seines: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | | | | | 600,000 | $30,000 | 930,837 | 38,321 |
| Salted | | | | | 512,200 | 25,610 | 658,200 | 28,504 |
| Black bass | | | | | | | 533,364 | 60,977 |
| Bluefish | 500 | $62 | 150 | $13 | | | 43,529 | 4,498 |
| Bowfin | | | | | | | 25,979 | 242 |
| Butterfish | | | | | | | 3,850 | 217 |
| Carp | | | | | | | 123,472 | 4,631 |
| Catfish | 500 | 15 | 1,000 | 30 | 1,267 | 76 | 114,566 | 2,602 |
| Croaker | | | 6,100 | 244 | | | 74,176 | 2,413 |
| Drum | | | 5,500 | 380 | | | 46,831 | 1,937 |
| Eels | | | | | | | 1,512 | 45 |
| Flounders | 200 | 30 | 4,200 | 290 | | | 7,375 | 498 |
| Gizzard shad | | | | | | | 9,371 | 97 |
| Hickory shad | | | | | | | 19,060 | 1,592 |
| Kingfish | 1,500 | 187 | | | | | 61,160 | 4,077 |
| Mullet— | | | | | | | | |
| Fresh | 20,000 | 1,750 | 102,500 | 9,000 | | | 447,165 | 27,949 |
| Salted | | | 20,500 | 2,190 | | | 219,900 | 25,610 |
| Perch, white | | | | | 2,000 | 160 | 354,509 | 14,362 |
| Perch, yellow | | | | | | | 154,467 | 7,200 |
| Pigfish | | | 8,150 | 633 | | | 47,572 | 2,122 |
| Pike | | | | | | | 15,480 | 1,441 |
| Pinfish | | | | | | | 30,049 | 460 |
| Pompano | 2,300 | 345 | | | | | 4,448 | 591 |
| Shad | | | | | 20,800 | 4,160 | 73,585 | 13,507 |
| Sheepshead | | | | | | | 6,845 | 385 |
| Spanish mackerel | | | | | | | 9,805 | 755 |
| Spot— | | | | | | | | |
| Fresh | 19,000 | 1,450 | 178,200 | 9,940 | | | 458,946 | 21,860 |
| Salted | | | 3,000 | 335 | | | 24,700 | 2,505 |
| Squeteague | 3,500 | 465 | 21,200 | 2,485 | | | 610,053 | 42,753 |
| Striped bass | | | | | | | 31,673 | 3,235 |
| Suckers | | | | | | | 4,890 | 124 |
| Sunfish | | | | | | | 104,422 | 1,026 |
| Yellowtail | 3,000 | 180 | 20,000 | 965 | | | 24,500 | 1,187 |
| Crabs, soft | | | | | | | 90,009 | 9,020 |
| Shrimp | 120,000 | 3,000 | | | | | 237,000 | 6,254 |
| Turtles | | | | | | | 2,000 | 11 |
| Total | 170,500 | 7,484 | 370,500 | 26,505 | 1,136,267 | 60,006 | 5,605,300 | 332,938 |
| Total, by seines | 170,500 | 7,484 | 370,500 | 26,505 | 1,136,267 | 60,006 | 6,028,340 | 340,795 |

BY GILL NETS.

| Species. | Beaufort. | | Bladen. | | Brunswick. | | Camden. | | Carteret. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: Fresh | | | | | | | | | 45,000 | $2,380 |
| Bluefish | | | | | | | | | 242,455 | 22,068 |
| Bonito | | | | | | | | | 1,015 | 27 |
| Butterfish | | | | | | | | | 8,975 | 452 |
| Cero | | | | | | | | | 1,758 | 95 |
| Croaker | | | | | 300 | $9 | | | 167,201 | 5,120 |
| Drum | | | | | | | | | 10,250 | 320 |
| Flounders | | | | | 2,300 | 108 | | | 1,475 | 83 |
| Hickory shad | | | | | | | | | 16,908 | 1,169 |
| Kingfish | | | | | 1,100 | 110 | | | 100,213 | 7,106 |
| Menhaden | | | | | | | | | 1,740,000 | 7,395 |
| Mullet: | | | | | | | | | | |
| Fresh | | | | | 6,000 | 400 | | | 67,225 | 4,165 |
| Salted | | | | | 50,000 | 6,000 | | | 22,500 | 4,000 |
| Pigfish: Fresh | | | | | | | | | 128,550 | 4,250 |
| Pinfish | | | | | | | | | 13,380 | 150 |
| Pompano | | | | | | | | | 1,353 | 147 |
| Shad | 10,440 | $1,740 | 3,990 | $1,140 | 2,050 | 425 | 17,800 | $4,450 | 16,124 | 4,792 |
| Sheepshead | | | | | 300 | 18 | | | 9,264 | 538 |
| Spanish mackerel | | | | | | | | | 98,575 | 9,757 |
| Spot: | | | | | | | | | | |
| Fresh | | | | | 3,500 | 130 | | | 538,395 | 22,293 |
| Salted | | | | | 15,000 | 1,200 | | | | |
| Squeteague: Fresh | | | | | 6,000 | 500 | | | 1,121,527 | 95,152 |
| Striped bass | | | | | 1,000 | 100 | | | 25 | 3 |
| Yellowtail | | | | | | | | | 6,608 | 187 |
| Shark hides | | | | | | | | | 19,125 | 2,868 |
| Other aquatic hides | | | | | | | | | 11,050 | 2,157 |
| Shrimp | | | | | | | | | 5,500 | 220 |
| Turtles | | | | | 500 | 13 | | | 2,000 | 13 |
| Total | 10,440 | 1,740 | 3,990 | 1,140 | 88,050 | 9,013 | 17,800 | 4,450 | 4,386,451 | 194,907 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY GILL NETS—Continued.

| Species. | Chowan. | | Columbus. | | Craven. | | Currituck. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | | | |
| Fresh | 4,750 | $120 | | | | | | |
| Salted | 1,900 | 48 | | | | | | |
| Catfish | | | | | 1,100 | $22 | | |
| Croaker | | | | | 350 | 17 | | |
| Flounders | | | | | 250 | 15 | | |
| Hickory shad | 15,010 | 1,900 | | | 10,940 | 690 | | |
| Mullet: Fresh | | | | | 17,400 | 1,395 | | |
| Perch: White | | | | | 1,400 | 140 | | |
| Shad | 79,792 | 17,404 | 1,575 | $450 | 9,288 | 2,433 | 13,284 | $2,214 |
| Spot: Fresh | | | | | 4,500 | 194 | | |
| Squeteague: Fresh | | | | | 910 | 83 | | |
| Striped bass | 7,980 | 1,596 | | | 500 | 50 | 250 | 50 |
| Total | 109,432 | 21,068 | 1,575 | 450 | 46,638 | 5,039 | 13,534 | 2,264 |

| Species. | Dare. | | Gates. | | Hertford. | | Hyde. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: Fresh | | | 21,688 | $347 | | | | |
| Bluefish | 15,000 | $1,200 | | | | | 6,600 | $748 |
| Drum | 16,500 | 210 | | | | | 250 | 3 |
| Flounders | | | | | | | 225 | 11 |
| Kingfish | | | | | | | 835 | 50 |
| Mullet: Salted | | | | | | | 650 | 169 |
| Pigfish: | | | | | | | | |
| Fresh | 15,000 | 600 | | | | | 500 | 25 |
| Salted | 3,125 | 63 | | | | | | |
| Pinfish | 750 | 15 | | | | | | |
| Shad | 151,634 | 43,512 | | | 125 | $25 | 38,961 | 6,202 |
| Sheepshead | 714 | 50 | | | | | | |
| Spanish mackerel | 1,000 | 50 | | | | | 85 | 10 |
| Spot: | | | | | | | | |
| Fresh | 15,000 | 600 | | | | | 2,500 | 125 |
| Salted | 3,125 | 63 | | | | | | |
| Squeteague: Fresh | 6,667 | 500 | | | | | 14,500 | 1,114 |
| Sturgeon | 1,337 | 328 | | | | | | |
| Sturgeon caviar | 311 | 697 | | | | | | |
| Total | 230,163 | 47,888 | 21,688 | 347 | 125 | 25 | 65,166 | 8,457 |

| Species. | New Hanover. | | Onslow. | | Pamlico. | | Pender. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: Fresh | 15,000 | $1,200 | 177,507 | $6,250 | | | | |
| Bluefish | | | 3,400 | 280 | | | | |
| Butterfish | | | | | 250 | $10 | | |
| Croaker | | | 9,050 | 230 | 1,250 | 50 | 400 | $30 |
| Drum | | | | | 5,000 | 60 | | |
| Eels | | | 1,645 | 164 | | | | |
| Flounders | 100 | 15 | | | | | | |
| Hickory shad | 5,000 | 400 | | | | | | |
| Kingfish | 200 | 25 | 18,250 | 1,220 | | | 300 | 23 |
| Mullet: | | | | | | | | |
| Fresh | 12,000 | 1,000 | 157,024 | 12,465 | 4,000 | 400 | 29,200 | 2,250 |
| Salted | | | 11,500 | 1,262 | 5,800 | 800 | 5,000 | 500 |
| Pigfish: Fresh | 3,000 | 300 | 9,000 | 350 | | | 50 | 3 |
| Shad | 38,600 | 11,275 | | | | | 1,000 | 275 |
| Sheepshead | | | 300 | 15 | 850 | 50 | | |
| Spanish mackerel | 1,500 | 225 | | | 100 | 10 | | |
| Spot: Fresh | 12,000 | 900 | 55,250 | 3,260 | 1,250 | 50 | 25,100 | 1,510 |
| Squeteague: | | | | | | | | |
| Fresh | | | 94,451 | 8,593 | 21,850 | 1,315 | 600 | 45 |
| Salted | | | | | 80 | 10 | | |
| Sturgeon | 3,500 | 420 | | | | | | |
| Sturgeon caviar | 10 | 10 | | | | | | |
| Yellowtail | | | | | 170 | 5 | | |
| Terrapin | | | 150 | 35 | | | | |
| Total | 90,910 | 15,770 | 537,527 | 34,124 | 40,600 | 2,760 | 61,650 | 4,636 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY GILL NETS—Continued.

| Species. | Perquimans. | | Tyrrell. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | | | |
| Fresh | 68,000 | $1,360 | | | 36,500 | $815 | 368,445 | $12,472 |
| Salted | 13,000 | 130 | | | | | 14,900 | 178 |
| Bluefish | | | | | | | 267,515 | 24,296 |
| Bonito | | | | | | | 1,015 | 27 |
| Butterfish | | | | | | | 9,225 | 462 |
| Carp | | | | | 71 | 5 | 71 | 5 |
| Catfish | | | | | 300 | 15 | 1,400 | 37 |
| Cero | | | | | | | 1,758 | 95 |
| Croaker | | | | | | | 178,551 | 5,456 |
| Drum | | | | | | | 32,000 | 593 |
| Eels | | | | | | | 1,645 | 164 |
| Flounders | | | | | | | 4,350 | 232 |
| Hickory shad | | | | | 6,125 | 735 | 53,983 | 4,894 |
| Kingfish | | | | | | | 120,898 | 8,534 |
| Menhaden | | | | | | | 1,740,000 | 7,395 |
| Mullet: | | | | | | | | |
| Fresh | | | | | | | 292,849 | 22,075 |
| Salted | | | | | | | 95,450 | 12,731 |
| Perch: | | | | | | | | |
| White | | | | | | | 1,400 | 140 |
| Yellow | 625 | 50 | | | | | 625 | 50 |
| Pigfish: | | | | | | | | |
| Fresh | | | | | | | 156,100 | 5,528 |
| Salted | | | | | | | 3,125 | 63 |
| Pinfish | | | | | | | 14,130 | 165 |
| Pompano | | | | | | | 1,353 | 147 |
| Shad | 109,600 | 21,920 | 875 | $175 | 26,844 | 5,253 | 521,982 | 123,685 |
| Sheepshead | | | | | | | 11,428 | 671 |
| Spanish mackerel | | | | | | | 101,260 | 10,052 |
| Spot: | | | | | | | | |
| Fresh | | | | | | | 657,495 | 29,062 |
| Salted | | | | | | | 18,125 | 1,263 |
| Squeteague: | | | | | | | | |
| Fresh | | | | | | | 1,266,505 | 107,302 |
| Salted | | | | | | | 80 | 10 |
| Striped bass | 7,250 | 1,450 | 988 | 238 | | | 17,993 | 3,487 |
| Sturgeon | | | | | | | 4,837 | 748 |
| Sturgeon caviar | | | | | | | 321 | 707 |
| Yellowtail | | | | | | | 6,778 | 192 |
| Shark hides | | | | | | | 19,125 | 2,868 |
| Other aquatic hides | | | | | | | 1,050 | 157 |
| Shrimp | | | | | | | 5,500 | 220 |
| Terrapin | | | | | | | 150 | 35 |
| Turtles | | | | | | | 2,500 | 26 |
| Total | 198,475 | 24,910 | 1,863 | 413 | 69,840 | 6,823 | 5,995,917 | 386,224 |

BY POUND NETS.

| Species. | Beaufort. | | Bertie. | | Carteret. | | Chowan. | | Currituck. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | | | | | |
| Fresh | 189,500 | $3,790 | 211,845 | $4,209 | 30,636 | $1,394 | 4,742,768 | $98,295 | 49,305 | $2,250 |
| Salted | | | 216,039 | 5,906 | | | 3,228,125 | 87,720 | 12,083 | 446 |
| Angelfish | | | | | 3,800 | 155 | | | | |
| Bluefish | | | | | 1,000 | 90 | | | | |
| Bonito | | | | | 2,000 | 80 | | | | |
| Butterfish | 70,009 | 4,128 | | | 57,224 | 3,680 | | | | |
| Catfish | 6,400 | 160 | 982 | 20 | | | 62,727 | 2,218 | 8,125 | 375 |
| Cero | | | | | 500 | 50 | | | | |
| Crevalle | | | | | 204 | 11 | | | | |
| Croaker | | | | | 45,500 | 1,355 | | | | |
| Drum | | | | | 2,000 | 37 | | | | |
| Eels | 835 | 25 | | | | | 6,860 | 549 | | |
| Flounders | 5,800 | 348 | | | 2,550 | 148 | | | | |
| Gizzard shad | | | | | | | 34,629 | 1,036 | 3,348 | 250 |
| Hickory shad | 2,700 | 243 | 628 | 31 | 6,703 | 280 | 43,273 | 3,932 | | |
| Kingfish | | | | | 1,750 | 85 | | | | |
| Menhaden | | | | | 2,000 | 12 | | | | |
| Perch: | | | | | | | | | | |
| White | 2,785 | 257 | 2,261 | 121 | | | 72,890 | 6,333 | 7,249 | 319 |
| Yellow | 1,757 | 123 | | | | | | | 2,416 | 106 |
| Pigfish | | | | | 600 | 18 | | | | |
| Pike | | | | | | | 294 | 28 | | |
| Pompano | 750 | 60 | | | 625 | 90 | | | | |
| Shad | 43,017 | 7,743 | 5,366 | 1,182 | 37,870 | 8,961 | 93,680 | 17,332 | 13,812 | 3,125 |
| Sheepshead | | | | | 1,000 | 60 | | | | |
| Spanish mackerel | | | | | 6,850 | 620 | | | | |
| Spot | | | | | 2,000 | 60 | | | | |
| Squeteague | 150,609 | 4,912 | | | 288,019 | 14,314 | | | | |
| Striped bass | 18,807 | 2,633 | 333 | 50 | 970 | 130 | 9,898 | 1,981 | 34,063 | 5,313 |
| Sturgeon | | | | | 540 | 27 | | | | |
| Suckers | | | 131 | 8 | | | 8,693 | 383 | | |
| Turtles | | | | | 3,500 | 20 | | | | |
| Total | 492,969 | 24,422 | 437,585 | 11,527 | 497,841 | 31,677 | 8,303,837 | 219,807 | 130,401 | 12,181 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY POUND NETS—Continued.

| Species. | Craven. | | Dare. | | Gates. | | Hertford. | | Hyde. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | | | | | |
| Fresh | 200 | $10 | 777,636 | $36,700 | 52,000 | $832 | 162,656 | $3,904 | 87,706 | $3,054 |
| Salted | | | 128,355 | 4,547 | | | | | | |
| Angelfish | 50 | 2 | | | | | | | 5,125 | 183 |
| Black bass | | | 3,686 | 442 | | | | | | |
| Butterfish | 30,000 | 1,200 | 437,473 | 12,345 | | | | | 39,626 | 978 |
| Catfish | 100 | 2 | 33,081 | 1,631 | | | | | 2,560 | 64 |
| Caviar | | | 350 | 790 | | | | | | |
| Croaker | | | 5,387 | 186 | | | | | 1,993 | 43 |
| Drum | | | | | | | | | 1,100 | 11 |
| Eels | | | | | | | | | 333 | 10 |
| Flounders | 100 | 4 | 19,567 | 977 | | | | | 10,556 | 383 |
| Hickory shad | 1,000 | 50 | 7,467 | 684 | | | | | 15,112 | 730 |
| Kingfish | | | 11,815 | 420 | | | | | 2,500 | 69 |
| Perch: | | | | | | | | | | |
| White | 300 | 30 | 29,701 | 1,195 | | | 792 | 48 | 3,078 | 277 |
| Yellow | | | 9,900 | 399 | | | | | 700 | 49 |
| Pigfish | | | | | | | | | 2,250 | 55 |
| Pompano | 25 | 2 | 204 | 12 | | | | | 1,280 | 92 |
| Shad | 2,665 | 665 | 729,636 | 175,760 | 600 | 120 | | | 70,866 | 12,194 |
| Spanish mackerel | 250 | 200 | 21,873 | 1,761 | | | | | 2,902 | 232 |
| Spot | 300 | 15 | 629 | 12 | | | | | 450 | 10 |
| Squeteague | 20,000 | 800 | 578,951 | 20,555 | | | | | 133,164 | 3,648 |
| Striped bass | 375 | 75 | 125,572 | 18,167 | | | | | 10,829 | 1,509 |
| Sturgeon | | | 1,539 | 199 | | | | | | |
| Total | 55,365 | 3,055 | 2,922,822 | 276,782 | 52,600 | 952 | 163,448 | 3,952 | 392,130 | 23,591 |

| Species. | Pamlico. | | Perquimans. | | Tyrrell. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | | | | | |
| Fresh | 3,750 | $125 | 82,000 | $1,640 | 762,350 | $10,417 | 31,600 | $1,044 | 7,183,952 | $167,664 |
| Salted | | | 26,000 | 260 | 1,151,383 | 27,623 | 308,791 | 7,411 | 5,070,776 | 133,913 |
| Angelfish | | | | | | | | | 8,975 | 340 |
| Black bass | | | | | | | | | 3,686 | 442 |
| Bluefish | | | | | | | | | 1,000 | 90 |
| Bonito | | | | | | | | | 2,000 | 80 |
| Butterfish | 80,900 | 1,645 | | | | | | | 715,232 | 23,976 |
| Carp | | | | | | | 2,357 | 165 | 2,357 | 165 |
| Catfish | | | | | 6,350 | 381 | 12,180 | 609 | 132,505 | 5,460 |
| Caviar | | | | | | | | | 350 | 790 |
| Cero | | | | | | | | | 500 | 50 |
| Crevalle | | | | | | | | | 204 | 11 |
| Croaker | 5,000 | 100 | | | | | | | 57,880 | 1,684 |
| Drum | 6,665 | 50 | | | | | | | 9,765 | 98 |
| Eels | | | | | | | 2,310 | 231 | 10,338 | 815 |
| Flounders | | | | | | | 650 | 52 | 42,571 | 2,162 |
| Gizzard shad | | | | | | | 525 | 21 | 35,154 | 1,057 |
| Hickory shad | | | | | | | 8,517 | 1,022 | 85,400 | 6,972 |
| Kingfish | | | | | | | | | 16,065 | 574 |
| Menhaden | | | | | | | | | 2,000 | 12 |
| Perch: | | | | | | | | | | |
| White | | | | | 8,896 | 838 | 28,900 | 2,890 | 156,852 | 12,308 |
| Yellow | | | 1,250 | 100 | | | | | 16,023 | 777 |
| Pigfish | | | | | | | | | 2,850 | 73 |
| Pike | | | | | | | | | 294 | 28 |
| Pompano | | | | | | | | | 2,884 | 256 |
| Shad | 20,250 | 3,750 | 25,000 | 5,000 | 875 | 175 | 17,745 | 3,472 | 1,061,382 | 239,479 |
| Sheepshead | | | | | | | | | 1,000 | 60 |
| Spanish mackerel | 1,000 | 100 | | | | | | | 32,875 | 2,913 |
| Spot | | | | | | | | | 3,379 | 97 |
| Squeteague | 177,100 | 4,130 | | | | | | | 1,347,843 | 48,359 |
| Striped bass | | | 2,000 | 400 | 987 | 237 | 6,450 | 1,290 | 210,284 | 31,785 |
| Sturgeon | | | | | | | | | 2,079 | 226 |
| Suckers | | | | | | | 2,750 | 165 | 11,574 | 556 |
| Turtles | | | | | | | | | 3,500 | 20 |
| Total | 294,665 | 9,900 | 136,250 | 7,400 | 1,930,841 | 39,671 | 422,775 | 18,372 | 16,233,529 | 683,292 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY FYKE NETS.

| Species. | Camden. | | Currituck. | | Gates. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | 6,710 | $167 | | |
| Black bass | | | 14,075 | 1,718 | | |
| Bowfin | | | 8,393 | 77 | | |
| Carp | | | 27,269 | 818 | | |
| Catfish | 2,400 | $120 | 35,226 | 528 | 312 | $25 |
| Crappie | | | | | 340 | 68 |
| Perch: | | | | | | |
| White | 2,300 | 230 | 101,277 | 4,050 | | |
| Yellow | | | 52,386 | 2,095 | 312 | 25 |
| Pike | | | 4,778 | 429 | | |
| Striped bass | | | 1,943 | 253 | | |
| Sunfish | | | 19,558 | 176 | | |
| Total | 4,700 | 350 | 271,615 | 10,311 | 964 | 118 |

| Species. | Perquimans. | | Tyrrell. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | | | | | 6,710 | $167 |
| Black bass | | | | | | | 14,075 | 1,718 |
| Bowfin | | | | | | | 8,393 | 77 |
| Carp | | | | | | | 27,269 | 818 |
| Catfish | | | | | 600 | $36 | 38,538 | 709 |
| Crappie | 300 | $30 | 4,700 | $470 | | | 5,340 | 568 |
| Perch: | | | | | | | | |
| White | | | | | 750 | 60 | 104,327 | 4,340 |
| Yellow | | | | | | | 52,698 | 2,120 |
| Pike | | | | | | | 4,778 | 429 |
| Striped bass | | | | | | | 1,943 | 253 |
| Sunfish | | | | | | | 19,558 | 176 |
| Total | 300 | 30 | 4,700 | 470 | 1,350 | 96 | 283,629 | 11,375 |

BY STOP NETS.

| Species. | Brunswick. | | Total. | | Species. | Brunswick. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Croaker | 200 | $9 | 200 | $9 | Squeteague | 500 | $34 | 500 | $34 |
| Drum | 1,500 | 73 | 1,500 | 73 | Tautog | 150 | 9 | 150 | 9 |
| Flounders | 4,500 | 265 | 4,500 | 265 | Crabs: | | | | |
| Kingfish | 150 | 8 | 150 | 8 | Hard | 650 | 20 | 650 | 20 |
| Mullet | 1,500 | 80 | 1,500 | 80 | Soft | 40 | 10 | 40 | 10 |
| Pigfish | 150 | 9 | 150 | 9 | | | | | |
| Sheepshead | 1,500 | 88 | 1,500 | 88 | Total | 10,840 | 605 | 10,840 | 605 |

BY LINES.

| Apparatus and species. | Brunswick. | | Carteret. | | Dare. | |
|---|---|---|---|---|---|---|
| Hand lines: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Bluefish | | | 1,300 | $100 | | |
| Croaker | | | 4,200 | 110 | | |
| Flounders | | | 325 | 25 | | |
| Pigfish | | | 7,500 | 175 | | |
| Sea bass | 1,000 | $70 | 12,150 | 1,038 | | |
| Sheepshead | | | 450 | 35 | | |
| Spanish mackerel | | | 5,000 | 500 | | |
| Spot | 150 | 7 | | | | |
| Squeteague | | | 41,800 | 3,375 | | |
| Total | 1,150 | 77 | 72,725 | 5,358 | | |
| Trot lines: Crabs, hard | | | | | 142,290 | $1,778 |
| Total, by lines | 1,150 | 77 | 72,725 | 5,358 | 142,290 | 1,778 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY LINES—Continued.

| Apparatus and species. | New Hanover. | | Onslow. | | Pender. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Hand lines: | | | | | | | | |
| Bluefish | | | | | 500 | $38 | 1,800 | $138 |
| Croaker | | | | | 800 | 30 | 5,000 | 140 |
| Drum | 8,000 | $480 | | | 800 | 40 | 8,800 | 520 |
| Flounders | 5,000 | 750 | | | | | 5,325 | 775 |
| Grunt | 15,000 | 1,150 | | | | | 15,000 | 1,150 |
| Kingfish | 300 | 37 | | | | | 300 | 37 |
| Pigfish | 45,000 | 4,500 | | | 2,500 | 185 | 55,000 | 4,860 |
| Sailor's choice | 6,000 | 600 | | | | | 6,000 | 600 |
| Sea bass | 50,000 | 5,000 | 200 | $25 | 800 | 70 | 64,150 | 6,203 |
| Sheepshead | 5,000 | 600 | | | | | 5,450 | 635 |
| Spanish mackerel | | | | | | | 5,000 | 500 |
| Spot | | | | | | | 150 | 7 |
| Squeteague | 10,000 | 1,300 | 45 | 5 | 2,000 | 240 | 53,845 | 4,920 |
| Turtles | 400 | 20 | | | | | 400 | 20 |
| Total | 144,700 | 14,437 | 245 | 30 | 7,400 | 603 | 226,220 | 20,505 |
| Set lines: Catfish | 17,500 | 975 | | | | | 17,500 | 975 |
| Trot lines: Crabs, hard | | | | | | | 142,290 | 1,778 |
| Total, by lines | 162,200 | 15,412 | 245 | 30 | 7,400 | 603 | 386,010 | 23,258 |

BY OTTER TRAWLS.

| Species. | Brunswick. | | Carteret. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Croaker | 1,000 | $25 | | | 1,000 | $25 |
| Flounders | 2,000 | 60 | | | 2,000 | 60 |
| Kingfish | 2,000 | 60 | | | 2,000 | 60 |
| Spots | 3,000 | 90 | | | 3,000 | 90 |
| Squeteague | 2,000 | 60 | | | 2,000 | 60 |
| Shrimp | 360,000 | 10,800 | 222,580 | $4,054 | 582,580 | 14,854 |
| Total | 370,000 | 11,095 | 222,580 | 4,054 | 592,580 | 15,149 |

BY DREDGES AND CRAB DRAGS.

| Apparatus and species. | Beaufort. | | Carteret. | | Hyde. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Oyster dredges: Oysters, market, public | 20,405 | $1,165 | | | 7,000 | $400 |
| Scallop dredges: Scallops | | | 404,448 | $29,726 | | |
| Total | 20,405 | 1,165 | 404,448 | 29,726 | 7,000 | 400 |
| Crab drags: Crabs, soft | | | 38,660 | 3,725 | | |

| Apparatus and species. | Onslow. | | Pamlico. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Oyster dredges: Oysters, market, public | | | 103,250 | $4,620 | 130,655 | $6,185 |
| Scallop dredges: Scallops | 7,260 | $850 | | | 411,708 | 30,576 |
| Total | 7,260 | 850 | 103,250 | 4,620 | 542,363 | 36,761 |
| Crab drags: Crabs, soft | | | | | 38,660 | 3,725 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY TONGS, RAKES, AND HAND.

| Apparatus and species. | Beaufort. | | Brunswick. | | Carteret. | | Dare. | | Hyde. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Tongs: | | | | | | | | | | |
| Clams, hard | ..... | ..... | 4,000 | $750 | 3,000 | $845 | ..... | ..... | ..... | ..... |
| Oysters, market, public | 1,400 | $100 | ..... | ..... | 275,884 | 7,368 | 39,900 | $2,850 | 24,500 | $1,300 |
| Total | 1,400 | 100 | 4,000 | 750 | 278,884 | 8,213 | 39,900 | 2,850 | 24,500 | 1,300 |
| Rakes: | | | | | | | | | | |
| Clams, hard | ..... | ..... | 40,000 | 7,600 | 43,576 | 7,127 | 6,400 | 1,200 | ..... | ..... |
| Scallops | ..... | ..... | ..... | ..... | 900 | 105 | ..... | ..... | ..... | ..... |
| Total | ..... | ..... | 40,000 | 7,600 | 44,476 | 7,232 | 6,400 | 1,200 | ..... | ..... |
| Hand: | | | | | | | | | | |
| Clams, hard | ..... | ..... | ..... | ..... | 600 | 131 | ..... | ..... | ..... | ..... |
| Oysters, market, public | ..... | ..... | 4,725 | 500 | 90,559 | 2,180 | ..... | ..... | ..... | ..... |
| Scallops | ..... | ..... | ..... | ..... | 10,224 | 937 | ..... | ..... | ..... | ..... |
| Terrapin | ..... | ..... | ..... | ..... | 60 | 57 | ..... | ..... | ..... | ..... |
| Total | ..... | ..... | 4,725 | 500 | 101,443 | 3,305 | ..... | ..... | ..... | ..... |

| Apparatus and species. | New Hanover. | | Onslow. | | Pamlico. | | Pender. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Tongs: | | | | | | | | | | |
| Clams, hard | ..... | ..... | 2,000 | $485 | ..... | ..... | ..... | ..... | 9,000 | $2,080 |
| Oysters, market— | | | | | | | | | | |
| Public | ..... | ..... | 18,025 | 3,050 | 54,684 | $2,210 | ..... | ..... | 414,393 | 16,878 |
| Private | ..... | ..... | 14,700 | 2,500 | 3,500 | 400 | ..... | ..... | 18,200 | 2,900 |
| Total | ..... | ..... | 34,725 | 6,035 | 58,184 | 2,610 | ..... | ..... | 441,593 | 21,858 |
| Rakes: | | | | | | | | | | |
| Clams, hard | 48,000 | $14,500 | 3,600 | 1,010 | ..... | ..... | 35,200 | $9,800 | 176,776 | 41,237 |
| Oysters, market, public | ..... | ..... | ..... | ..... | ..... | ..... | 7,000 | 500 | 7,000 | 500 |
| Scallops | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 900 | 105 |
| Total | 48,000 | 14,500 | 3,600 | 1,010 | ..... | ..... | 42,200 | 10,300 | 184,676 | 41,842 |
| Hand: | | | | | | | | | | |
| Clams, hard | ..... | ..... | 11,200 | 3,150 | ..... | ..... | ..... | ..... | 11,800 | 3,281 |
| Oysters, market, public | 10,500 | 600 | 6,125 | 700 | ..... | ..... | 7,000 | 500 | 118,909 | 4,480 |
| Scallops | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 10,224 | 937 |
| Terrapin | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 60 | 57 |
| Total | 10,500 | 600 | 17,325 | 3,850 | ..... | ..... | 7,000 | 500 | 140,993 | 8,755 |

BY POTS AND GIGS.

| Apparatus and species. | Beaufort. | | Carteret. | | Craven. | | Currituck. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Pots: Eels | 36,817 | $1,006 | 1,500 | $150 | 500 | $40 | 112,581 | $10,268 |
| Gigs: Flounders | ..... | ..... | 3,000 | 230 | ..... | ..... | ..... | ..... |

| Apparatus and species. | Dare. | | New Hanover. | | Onslow. | | Pender. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value* | *Pounds.* | *Value.* |
| Pots: Eels | 8,000 | $680 | ..... | ..... | 1,648 | $165 | ..... | ..... | 161,046 | $12,309 |
| Gigs: Flounders | ..... | ..... | 5,000 | $750 | 4,000 | 310 | 13,000 | $1,740 | 25,000 | 3,030 |

YIELD OF SHORE FISHERIES OF NORTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY SCOOP, DIP, AND BOW NETS.

| Apparatus and species. | Bladen. | | Carteret. | | Halifax. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Scoop and dip nets: | | | | | | |
| Shad | 87 | $25 | | | | |
| Crabs— | | | | | | |
| Hard | | | 2,000 | $150 | | |
| Soft | | | 104,996 | 11,066 | | |
| Total | 87 | 25 | 106,996 | 11,216 | | |
| Bow nets: Striped bass | | | | | 6,635 | $2,770 |

| Apparatus and species. | New Hanover. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Scoop and dip nets: | | | | | | |
| Alewives | | | 250,000 | $20,000 | 250,000 | $20,000 |
| Shad | | | | | 87 | 25 |
| Crabs— | | | | | | |
| Hard | 665 | $35 | | | 2,665 | 185 |
| Soft | | | | | 104,996 | 11,066 |
| Total | 665 | 35 | 250,000 | 20,000 | 357,748 | 31,276 |
| Bow nets: Striped bass | | | | | 6,635 | 2,770 |

INDUSTRIES.

*Menhaden industry.*—In 1918 there were 21 factories in operation as compared with 9 in 1902 and 6 in 1897. These 21 factories were valued at $905,436, employing cash capital to the amount of $66,800, and gave employment to 599 persons, to whom $260,037 were paid in wages. These plants handled 179,910,599 pounds of menhaden, valued at $1,306,489. Manufactured products included 979,068 gallons of oil, valued at $761,588, of which 720 gallons, valued at $540, was shark oil; and 23,088 tons of dried and acidulated scrap, valued at $1,290,614. Other by-products of the fisheries of the State included 3,100 tons of ground oyster shells, valued at $18,600, and 20,175 pounds of shark and other aquatic hides, valued at $3,025, the total value of by-products being $2,073,827.

*Wholesale trade.*—In 1918 there were 46 wholesale fishery establishments in the coastal region of North Carolina handling fresh and salt fish, oysters, clams, and other fishery products, valued at $158,950, with a cash capital amounting to $61,750, and engaging 208 persons to whom $85,475 were paid in wages.

*Canning industry.*—There were 8 establishments, valued at $130,715, engaged in canning fishery products and the crushing of oyster shells, employing working capital to the amount of $30,500, and engaging 500 persons to whom $49,100 were paid in wages. The products included canned oysters to the value of $112,334; canned shrimp to the value of $39,576; canned alewife or river herring roe to the value of $4,070; canned redfish or red drum to the value of $450; 392,667 pounds of salted alewives or river herring to the value of $7,068; and 3,100 tons of crushed oyster shells to the value of $18,600. The important features of each of the above shore industries are shown in the appended tables.

INDUSTRIES OF NORTH CAROLINA IN 1918.

MENHADEN INDUSTRY.

| Item. | Number. | Value. | Item. | Number. | Value. |
|---|---|---|---|---|---|
| Establishments | 21 | $905,436 | PRODUCTS. | | |
| Cash capital | | 66,800 | | | |
| Persons engaged | 599 | | Oil ... gallons | [1] 979,068 | $761,588 |
| Wages paid | | 260,037 | Dry scrap ... tons | 9,488 | 674,850 |
| | | | Acidulated scrap ... do | 13,600 | 615,764 |

WHOLESALE TRADE IN FRESH AND SALTED FISH, OYSTERS, CLAMS, SCALLOPS, AND CRABS.

| | | | | | |
|---|---|---|---|---|---|
| Establishments | 46 | $158,950 | Persons engaged | 208 | |
| Cash capital | | 61,750 | Wages paid | | $85,475 |

PREPARED FISHERY PRODUCTS AND CERTAIN BY-PRODUCTS.

| | | | | | |
|---|---|---|---|---|---|
| Establishments | 8 | $130,715 | Shrimp, canned: | | |
| Cash capital | | 30,500 | No. 1 cans ... cases | [2] 9,200 | $38,256 |
| Persons engaged | 500 | | No. 1½ cans ... do | [1] 550 | 1,320 |
| Wages paid | | 49,100 | Total | | 39,576 |
| PRODUCTS. | | | Alewife roe, canned: No. 2 cans ... cases | [2] 1,100 | 4,070 |
| Oysters, canned: | | | Redfish, canned: No. 2 cans ... cases | [2] 200 | 450 |
| 4-ounce cans ... cases | [2] 724 | 1,665 | Alewives, salted ... pounds | 392,667 | 7,068 |
| Do ... do | [3] 1,700 | 8,500 | Oyster shells, crushed (agricultural lime) ... pounds | 6,200,000 | 18,600 |
| 5-ounce cans ... do | [2] 23,389 | 45,034 | | | |
| Do ... do | [3] 5,000 | 26,500 | | | |
| 8-ounce cans ... do | [2] 526 | 2,420 | | | |
| 10-ounce cans ... do | [2] 5,643 | 28,215 | | | |
| Total | | 112,334 | | | |

[1] Includes 720 gallons of shark oil, valued at $540.
[2] Two dozen cans per case.
[3] Four dozen cans per case.

## FISHERIES OF SOUTH CAROLINA.

The coastal fisheries of South Carolina are less extensive than those of the other South Atlantic States, the products representing only 1.13 per cent of the total quantity and 3.88 per cent of the total value for the region. In 1918 the number of persons employed in the fisheries of this State was 2,000, of whom 103 were on fishing vessels, 20 on vessels transporting fishery products, 1,121 in the shore and boat fisheries, and 756 shoresmen in the wholesale fish establishments and other fishery industries. Compared with 1902, there has been a decrease of 1,713 persons, or 46.14 per cent.

The total investment of the fisheries of the State was $221,251. This included 43 fishing and transporting vessels, valued at $39,000, of a net tonnage of 505 tons, and with outfits valued at $7,840; 690 boats, valued at $36,410; fishing apparatus used on vessels and boats to the value of $22,126; shore and accessory property worth $95,775, and working cash capital to the value of $20,100.

The total yield of the fisheries in 1918 was 3,746,932 pounds, valued at $207,690, representing a decrease as compared with 1902 of 4,427,531 pounds, or 54.16 per cent in quantity, and $55,333, or 21.03 per cent in value. The five most important species arranged in order of value were as follows: Oysters, 2,783,830 pounds, or 397,690 bushels, valued at $96,542; shad, 167,462 pounds, valued at $29,085;

sturgeon, including sturgeon caviar, 117,890 pounds, valued at $22,025; mullet, fresh and salted, 200,750 pounds, valued at $19,129; and sea bass, 132,000 pounds, valued at $13,200. Compared with 1902, there has been a decrease in the take of oysters of 292,010 bushels; of shad, of 266,671 pounds; an increase in the catch of sturgeon of 33,275 pounds, but a decrease of 9,535 pounds in the production of caviar; an increase in the catch of mullet of 62,150 pounds; and a decrease in the catch of sea bass amounting to 577,545 pounds. For years there has been a small fishery for sharks for food, the catch in 1918 amounting to 20,000 pounds, a decrease of 70,000 pounds as compared with 1902.

### FISHERIES BY COUNTIES.

The following table gives, by counties, the number of persons employed, investment, and products of the fisheries of South Carolina in 1918.

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF SOUTH CAROLINA IN 1918, BY COUNTIES.

| Item. | Beaufort. | | Charleston. | | Colleton. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 81 | | 6 | | | |
| On vessels transporting | | | 20 | | | |
| In shore fisheries | 277 | | 358 | | 80 | |
| Shoresmen | 444 | | 299 | | | |
| Total | 802 | | 683 | | 80 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Gasoline | | | 2 | $3,005 | | |
| Tonnage | | | 24 | | | |
| Outfit | | | | 275 | | |
| Sail | 33 | $20,995 | | | | |
| Tonnage | 357 | | | | | |
| Outfit | | 4,415 | | | | |
| Vessels transporting: Gasoline | | | 7 | 11,000 | | |
| Tonnage | | | 74 | | | |
| Outfit | | | | 1,350 | | |
| Boats: | | | | | | |
| Sail and row | 286 | 8,760 | 238 | 4,025 | 40 | $1,000 |
| Power | | | 24 | 10,900 | 2 | 800 |
| Apparatus, vessel fisheries: | | | | | | |
| Tongs | 81 | 443 | | | | |
| Grabs | 78 | 78 | 6 | 6 | | |
| Apparatus, shore fisheries: | | | | | | |
| Haul seines | | | 4 | 60 | | |
| Gill nets | 14 | 800 | 25 | 2,800 | 41 | 1,570 |
| Cast nets | | | 71 | 155 | | |
| Lines | | 10 | | 505 | | |
| Otter trawls | | | 1 | 50 | | |
| Tongs and rakes | 196 | 1,095 | 8 | 36 | | |
| Grabs | 243 | 242 | 102 | 109 | | |
| Shore and accessory property | | 55,915 | | 33,045 | | 1,200 |
| Cash capital | | 8,100 | | 10,500 | | |
| Total | | 100,853 | | 77,821 | | 4,570 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Black drum | | | 5,000 | $225 | | |
| Bluefish | | | 1,500 | 140 | | |
| Catfish | | | 2,500 | 100 | | |
| Crevalle | | | 300 | 65 | | |
| Croaker | 3,500 | $275 | 8,800 | 585 | | |
| Flounders | | | 1,000 | 130 | | |
| Grunts | | | 100 | 6 | | |
| King whiting | 2,525 | 300 | 35,650 | 4,250 | | |
| Mullet, fresh | | | 3,300 | 125 | | |
| Pinfish or sailor's choice | | | 2,000 | 130 | | |
| Porgies | | | 2,000 | 130 | | |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF SOUTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | Beaufort. | | Charleston. | | Colleton. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Redfish or red drum | | | 1,000 | $60 | | |
| Sea bass | | | 72,000 | 7,200 | | |
| Shad | 8,762 | $1,400 | 20,700 | 3,260 | 32,600 | $5,110 |
| Sharks | | | 20,000 | 175 | | |
| Sheepshead | | | 1,500 | 150 | | |
| Skates | | | 2,000 | 15 | | |
| Spot, fresh | 1,000 | 75 | 1,200 | 75 | | |
| Squeteague or "sea trout" | 5,000 | 600 | 46,500 | 3,640 | | |
| Sturgeon | 4,101 | 735 | 324 | 97 | 2,800 | 504 |
| Sturgeon caviar | 75 | 56 | | | 70 | 50 |
| Shrimp | | | 55,400 | 6,220 | | |
| Crabs: | | | | | | |
| Hard | | | 18,000 | 400 | | |
| Soft | | | 300 | 75 | | |
| Clams, hard | | | 800 | 200 | | |
| Terrapin | | | 1,275 | 545 | | |
| Oysters, market: | | | | | | |
| Public | 1,562,085 | 49,023 | 1,069,670 | 34,869 | | |
| Private | 133,000 | 9,300 | 19,075 | 3,350 | | |
| Total | 1,720,048 | 61,764 | 1,391,894 | 66,217 | 35,470 | 5,664 |

| Item. | Georgetown. | | Horry. | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 16 | | | | 103 | |
| On vessels transporting | | | | | 20 | |
| In shore fisheries | 192 | | 214 | | 1,121 | |
| Shoresmen | 8 | | 5 | | 756 | |
| Total | 216 | | 219 | | 2,000 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Gasoline | 1 | $4,000 | | | 3 | $7,005 |
| Tonnage | 50 | | | | 74 | |
| Outfit | | 1,800 | | | | 2,075 |
| Sail | | | | | 33 | 20,995 |
| Tonnage | | | | | 357 | |
| Outfit | | | | | | 4,415 |
| Vessels transporting: Gasoline | | | | | 7 | 11,000 |
| Tonnage | | | | | 74 | |
| Outfit | | | | | | 1,350 |
| Boats: | | | | | | |
| Sail and row | 46 | 1,030 | 29 | $995 | 639 | 15,810 |
| Power | 24 | 8,750 | 1 | 150 | 51 | 20,600 |
| Apparatus, vessel fisheries: | | | | | | |
| Lines | | 100 | | | | 100 |
| Tongs | | | | | 81 | 443 |
| Grabs | | | | | 84 | 84 |
| Apparatus, shore fisheries: | | | | | | |
| Haul seines | 5 | 390 | 16 | 2,100 | 25 | 2,550 |
| Gill nets | 153 | 11,355 | | | 233 | 16,525 |
| Stop nets | | | 2 | 130 | 2 | 130 |
| Bow nets | 5 | 25 | | | 5 | 25 |
| Cast nets | | | | | 71 | 155 |
| Gigs or spears | 26 | 20 | 10 | 7 | 36 | 27 |
| Lines | | | | | | 515 |
| Otter trawls | 1 | 40 | | | 2 | 90 |
| Tongs and rakes | | | | | 204 | 1,131 |
| Grabs | | | | | 345 | 351 |
| Shore and accessory property | | 4,165 | | 1,450 | | 95,775 |
| Cash capital | | 1,500 | | | | 20,100 |
| Total | | 33,175 | | 4,832 | | 221,251 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF SOUTH CAROLINA IN 1918, BY COUNTIES—Continued.

| Item. | Georgetown. | | Horry. | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | 9,500 | $475 | | | 9,500 | $475 |
| Black drum | | | | | 5,000 | 225 |
| Bluefish | | | 1,500 | $135 | 3,000 | 275 |
| Butterfish | | | 600 | 45 | 600 | 45 |
| Catfish | 400 | 8 | | | 2,900 | 108 |
| Crevalle | | | | | 300 | 65 |
| Croaker | 1,300 | 88 | 2,400 | 114 | 16,000 | 1,062 |
| Flounders | 14,500 | 875 | 700 | 56 | 16,200 | 1,061 |
| Grunts | | | | | 100 | 6 |
| Hickory shad | 20,500 | 2,000 | | | 20,500 | 2,000 |
| King whiting | 250 | 17 | 1,700 | 140 | 40,125 | 4,707 |
| Mullet: | | | | | | |
| Fresh | 35,600 | 2,495 | 19,150 | 1,603 | 58,050 | 4,223 |
| Salted | 3,400 | 370 | 139,300 | 14,536 | 142,700 | 14,906 |
| Pinfish or sailor's choice | | | 300 | 18 | 2,300 | 148 |
| Porgies | | | | | 2,000 | 130 |
| Redfish or red drum | | | | | 1,000 | 60 |
| Sea bass | 60,000 | 6,000 | | | 132,000 | 13,200 |
| Shad | 105,400 | 19,315 | | | 167,462 | 29,085 |
| Sharks | | | | | 20,000 | 175 |
| Sheepshead | | | 600 | 60 | 2,100 | 210 |
| Skates | | | | | 2,000 | 15 |
| Spot: | | | | | | |
| Fresh | 20,000 | 1,060 | 14,800 | 1,144 | 37,000 | 2,354 |
| Salted | | | 25,550 | 2,085 | 25,550 | 2,085 |
| Squeteague or "sea trout" | 3,550 | 246 | 4,100 | 360 | 59,150 | 4,846 |
| Sturgeon | 110,000 | 19,800 | | | 117,225 | 21,136 |
| Sturgeon caviar | 520 | 783 | | | 665 | 889 |
| Sunfish | | | 3,000 | 180 | 3,000 | 180 |
| Yellowtail or "silver perch" | 400 | 12 | 500 | 25 | 900 | 37 |
| Shrimp | | | | | 55,400 | 6,220 |
| Crabs: | | | | | | |
| Hard | | | | | [1] 18,000 | 400 |
| Soft | | | | | [2] 300 | 75 |
| Clams, hard | | | | | [3] 800 | 200 |
| Terrapin | | | | | 1,275 | 545 |
| Oysters, market: | | | | | | |
| Public | | | | | [4] 2,631,755 | 83,892 |
| Private | | | | | [5] 152,075 | 12,650 |
| Total | 385,320 | 53,544 | 214,200 | 20,501 | 3,746,932 | 207,690 |

[1] 54,000 in number. [2] 900 in number. [3] 100 bushels. [4] 375,965 bushels. [5] 21,725 bushels.

FISHERIES BY APPARATUS.

The combined yield of the vessel and shore fisheries of South Carolina in 1918 with all forms of apparatus amounted to 3,746,932 pounds, valued at $207,690. Grabs were the most productive form of gear used, taking 283,288 bushels of oysters, valued at $67,139. The catch with gill nets, consisting chiefly of shad and sturgeon, amounted to 350,902 pounds, valued at $55,827. The catch of oysters with tongs amounted to 114,402 bushels, valued at $29,403. Sea bass, king whiting, and squeteague were the principal species taken with lines, the total catch with this form of apparatus being 291,575 pounds, valued at $24,751. The catch with seines was 237,375 pounds, valued at $22,439, of which 176,350 pounds, valued at $17,531, were mullet.

The two leading forms of a paratus used in the shore fisheries were gill nets and grabs. Other kinds of gear used in the shore fisheries were seines, cast nets, otter trawls, gigs, stop nets, bow nets, and rakes.

Only three forms of fishing apparatus were employed in the vessel fisheries, namely, grabs, tongs, and lines.

The products of the vessel and shore or boat fisheries are shown in the following tables:

YIELD OF VESSEL FISHERIES OF SOUTH CAROLINA IN 1918, BY COUNTIES, APPARATUS, AND SPECIES.

| Apparatus and species. | Beaufort. | | Charleston. | | Georgetown. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Lines: Sea bass | | | | | 60,000 | $6,000 | 60,000 | $6,000 |
| Tongs: Oysters, market, public | 440,048 | $12,216 | | | | | 440,048 | 12,216 |
| Grabs: Oysters, market, public | 435,148 | 12,076 | 66,500 | $13,976 | | | 501,648 | 26,052 |
| Total | 875,196 | 24,292 | 66,500 | 13,976 | 60,000 | 6,000 | 1,001,696 | 44,268 |

YIELD OF SHORE FISHERIES OF SOUTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES.

BY GILL NETS.

| Species. | Beaufort. | | Charleston. | | Georgetown. | | Colleton. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | | | 9,500 | $475 | | | 9,500 | $475 |
| Catfish | | | | | 400 | 8 | | | 400 | 8 |
| Croaker | | | | | 700 | 47 | | | 700 | 47 |
| Flounders | | | | | 500 | 25 | | | 500 | 25 |
| Hickory shad | | | | | 19,250 | 1,900 | | | 19,250 | 1,900 |
| King whiting | | | | | 200 | 14 | | | 200 | 14 |
| Mullet: | | | | | | | | | | |
| Fresh | | | | | 19,500 | 1,300 | | | 19,500 | 1,300 |
| Salted | | | | | 1,000 | 125 | | | 1,000 | 125 |
| Shad | 8,762 | $1,400 | 20,700 | $3,260 | 105,400 | 19,315 | 32,600 | $5,110 | 167,462 | 29,085 |
| Spots | | | | | 13,000 | 720 | | | 13,000 | 720 |
| Squeteague | | | | | 1,500 | 103 | | | 1,500 | 103 |
| Sturgeon | 4,101 | 735 | 324 | 97 | 110,000 | 19,800 | 2,800 | 504 | 117,225 | 21,136 |
| Sturgeon caviar | 75 | 56 | | | 520 | 783 | 70 | 50 | 665 | 889 |
| Total | 12,938 | 2,191 | 21,024 | 3,357 | 281,470 | 44,615 | 35,470 | 5,664 | 350,902 | 55,827 |

BY ALL OTHER APPARATUS.

| Apparatus and species. | Beaufort. | | Charleston. | | Georgetown. | | Horry. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Seines: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Bluefish | | | | | | | 1,500 | $135 | 1,500 | $135 |
| Butterfish | | | | | | | 600 | 45 | 600 | 45 |
| Croaker | | | | | 600 | $41 | 2,400 | 114 | 3,000 | 155 |
| Flounders | | | | | 2,000 | 100 | 600 | 48 | 2,600 | 148 |
| King whiting | | | | | 50 | 3 | 1,700 | 140 | 1,750 | 143 |
| Mullet— | | | | | | | | | | |
| Fresh | | | | | 16,100 | 1,195 | 18,550 | 1,555 | 34,650 | 2,750 |
| Salted | | | | | 2,400 | 245 | 139,300 | 14,536 | 141,700 | 14,781 |
| Sailor's choice | | | | | | | 300 | 18 | 300 | 18 |
| Sheepshead | | | | | | | 600 | 60 | 600 | 60 |
| Spots— | | | | | | | | | | |
| Fresh | | | | | 7,000 | 340 | 13,800 | 1,064 | 20,800 | 1,404 |
| Salted | | | | | | | 18,550 | 1,535 | 18,550 | 1,535 |
| Squeteague | | | | | 2,050 | 143 | 4,100 | 360 | 6,150 | 503 |
| Sunfish | | | | | | | 3,000 | 180 | 3,000 | 180 |
| Yellowtail | | | | | 400 | 12 | 500 | 25 | 900 | 37 |
| Terrapin | | | 1,275 | $545 | | | | | 1,275 | 545 |
| Total | | | 1,275 | 545 | 30,600 | 2,079 | 205,500 | 19,815 | 237,375 | 22,439 |
| Otter trawls: | | | | | | | | | | |
| Shrimp | | | 30,000 | 1,200 | | | | | 30,000 | 1,200 |
| Bow nets: hickory shad | | | | | 1,250 | 100 | | | 1,250 | 100 |

YIELD OF SHORE FISHERIES OF SOUTH CAROLINA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY ALL OTHER APPARATUS—Continued.

| Apparatus and species. | Beaufort. | | Charleston. | | Georgetown. | | Horry. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Cast nets: | | | | | | | | | | |
| Catfish | | | 1,000 | $25 | | | | | 1,000 | $25 |
| Croaker | | | 800 | 25 | | | | | 800 | 25 |
| Mullet | | | 3,300 | 125 | | | | | 3,300 | 125 |
| Shrimp | | | 25,400 | 5,020 | | | | | 25,400 | 5,020 |
| Total | | | 30,500 | 5,195 | | | | | 30,500 | 5,195 |
| Stop nets: | | | | | | | | | | |
| Flounders | | | | | | | 100 | $8 | 100 | 8 |
| Mullet | | | | | | | 600 | 48 | 600 | 48 |
| Spots— | | | | | | | | | | |
| Fresh | | | | | | | 1,000 | 80 | 1,000 | 80 |
| Salted | | | | | | | 7,000 | 550 | 7,000 | 550 |
| Total | | | | | | | 8,700 | 686 | 8,700 | 686 |
| Gigs or spears: | | | | | | | | | | |
| Flounders | | | | | 12,000 | $750 | | | 12,000 | 750 |
| Lines: | | | | | | | | | | |
| Black drum | | | 5,000 | 225 | | | | | 5,000 | 225 |
| Bluefish | | | 1,500 | 140 | | | | | 1,500 | 140 |
| Catfish | | | 1,500 | 75 | | | | | 1,500 | 75 |
| Channel bass | | | 1,000 | 60 | | | | | 1,000 | 60 |
| Crevalle | | | 300 | 65 | | | | | 300 | 65 |
| Croaker | 3,500 | $275 | 8,000 | 560 | | | | | 11,500 | 835 |
| Flounders | | | 1,000 | 130 | | | | | 1,000 | 130 |
| Grunt | | | 100 | 6 | | | | | 100 | 6 |
| King whiting | 2,525 | 300 | 35,650 | 4,250 | | | | | 38,175 | 4,550 |
| Porgy | | | 2,000 | 130 | | | | | 2,000 | 130 |
| Sailor's choice | | | 2,000 | 130 | | | | | 2,000 | 130 |
| Sea bass | | | 72,000 | 7,200 | | | | | 72,000 | 7,200 |
| Sheepshead | | | 1,500 | 150 | | | | | 1,500 | 150 |
| Spots | 1,000 | 75 | 1,200 | 75 | | | | | 2,200 | 150 |
| Squeteague | 5,000 | 600 | 46,500 | 3,640 | | | | | 51,500 | 4,240 |
| Sharks | | | 20,000 | 175 | | | | | 20,000 | 175 |
| Skates | | | 2,000 | 15 | | | | | 2,000 | 15 |
| Crabs— | | | | | | | | | | |
| Hard | | | 18,000 | 400 | | | | | 18,000 | 400 |
| Soft [1] | | | 300 | 75 | | | | | 300 | 75 |
| Total | 12,025 | 1,250 | 219,550 | 17,501 | | | | | 231,575 | 18,751 |
| Tongs: Oysters, market— | | | | | | | | | | |
| Public | 304,941 | 11,987 | 1,750 | 250 | | | | | 306,691 | 12,237 |
| Private | 45,500 | 3,450 | 8,575 | 1,500 | | | | | 54,075 | 4,950 |
| Total | 350,441 | 15,437 | 10,325 | 1,750 | | | | | 360,766 | 17,187 |
| Grabs: Oysters, market— | | | | | | | | | | |
| Public | 381,948 | 12,744 | 1,001,420 | 20,643 | | | | | 1,383,368 | 33,387 |
| Private | 87,500 | 5,850 | 10,500 | 1,850 | | | | | 98,000 | 7,700 |
| Total | 469,448 | 18,594 | 1,011,920 | 22,493 | | | | | 1,481,368 | 41,087 |
| Rakes: Clams, hard | | | 800 | 200 | | | | | 800 | 200 |

[1] Taken with the hands.

INDUSTRIES.

*Wholesale trade.*—In 1918 there were 6 wholesale establishments, valued at $51,820, with cash capital amounting to $8,100, employing 59 persons, to whom $40,678 were paid in wages.

*Oyster-canning industry.*—In addition to those given above, there were 9 establishments engaged in the canning of oysters and utilization of shells, valued at $121,925, using cash capital to the amount of

$12,000, employing 592 persons, to whom $60,985 were paid in wages during the year. The pack amounted to 2,769,168 cans of various sizes, valued at $338,843.

The following table contains statistics of the canning industry for South Carolina in 1918:

OYSTER-CANNING INDUSTRY IN SOUTH CAROLINA IN 1918.

| Item. | Number. | Value. |
|---|---|---|
| Establishments | 9 | $121,925 |
| Cash capital | | 12,000 |
| Persons engaged | 592 | |
| Wages paid | | 60,985 |
| PRODUCTS.[1] | | |
| Oysters canned: | | |
| 3-ounce cans.....cases.. | [3] 401 | 1,746 |
| 4-ounce cans.....do.... | [2] 880 | 1,822 |
| Do.....do.... | [3] 2,289 | 9,822 |
| PRODUCTS—continued. | | |
| Oysters canned—Continued. | | |
| 5-ounce cans.....cases.. | [2] 50,496 | $154,028 |
| Do.....do.... | [3] 23,705 | 117,235 |
| 6-ounce cans.....do.... | [3] 100 | 800 |
| 8-ounce cans.....do.... | [2] 1,826 | 7,690 |
| 10-ounce cans.....do.... | [2] 9,190 | 45,700 |
| Total | | 338,843 |

[1] The by-products are included with the statistics for Georgia.
[2] Two dozen cans per case.
[3] Four dozen cans per case.

## FISHERIES OF GEORGIA.

In 1918 the fisheries of Georgia gave employment to 1,680 persons, of whom 188 were on fishing and transporting vessels, 476 in the shore fisheries, and 1,016 shoresmen in the wholesale fishery trade and oyster and shrimp canning industry.

The investment amounted to $769,998, which includes 33 fishing and transporting vessels, valued at $122,663, with a net tonnage of 552 tons and outfits valued at $41,866; 412 power and other boats, valued at $86,205; fishing apparatus employed on vessels and boats, valued at $17,085; shore and accessory property, valued at $429,779; and cash capital amounting to $72,400.

The products amounted to 37,153,953 pounds, valued at $416,043, and represent an increase of 26,051,343 pounds in quantity and $56,962 in value as compared with 1902. The 5 most important products, arranged in the order of their value, are as follows: Shrimp, 5,793,465 pounds, valued at $173,990; menhaden, 29,484,600 pounds, valued at $88,453; oysters, 1,109,822 pounds, or 158,546 bushels, valued at $73,913; shad, 100,540 pounds, valued at $26,960; and sea bass, 292,615 pounds, valued at $23,765. Compared with 1902, there has been an increase in the catch of shrimp of 5,449,338 pounds in quantity and $165,582 in value, and an increase in the catch of sea bass amounting to 216,115 pounds in quantity and $17,683 in value; a decrease in the take of oysters amounting to 7,458,178 pounds, or 1,065,454 bushels, in quantity, and $146,554 in value; a decrease of 928,510 pounds in quantity of shad and $48,229 in value; a decrease in the catch of mullet amounting to 115,150 pounds in quantity and $1,883 in the value; and a decrease in the catch of terrapin amounting to 31,196 pounds in quantity and $10,682 in value. In 1902 there was no fishery for menhaden in the State.

FISHERIES BY COUNTIES.

The following table shows, by counties, the number of persons employed, number and value of vessels, boats and apparatus used, amount of capital invested, and the quantity and value of the products of the fisheries in 1918.

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF GEORGIA IN 1918, BY COUNTIES.

| Item. | Bryan. | | Camden. | | Chatham. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | | | 102 | | 54 | |
| In shore fisheries | 21 | | 68 | | 183 | |
| Shoresmen | | | 191 | | 316 | |
| Total | 21 | | 361 | | 553 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Gasoline | | | 7 | $56,900 | 7 | $37,040 |
| Tonnage | | | 215 | | 176 | |
| Outfit | | | | 28,233 | | 9,308 |
| Sail | | | | | 5 | 2,315 |
| Tonnage | | | | | 44 | |
| Outfit | | | | | | 325 |
| Boats: | | | | | | |
| Sail, row, etc. | 21 | $315 | 22 | 1,115 | 186 | 5,850 |
| Power | | | 25 | 24,400 | 10 | 2,225 |
| Apparatus, vessel fisheries: | | | | | | |
| Purse seines | | | 4 | 4,800 | | |
| Lines | | | | | | 105 |
| Otter trawls | | | 3 | 160 | | |
| Dredges | | | | | 6 | 390 |
| Tongs | | | | | 13 | 76 |
| Grabs | | | | | 13 | 12 |
| Apparatus, shore fisheries: | | | | | | |
| Gill nets | 21 | 735 | 16 | 1,050 | 38 | 1,260 |
| Lines | | | | 2 | | |
| Otter trawls | | | 23 | 1,200 | | |
| Tongs | | | | | 160 | 835 |
| Grabs | | | | | 160 | 162 |
| Shore and accessory property | | 25 | | 77,145 | | 194,130 |
| Cash capital | | | | 14,600 | | 36,600 |
| Total | | 1,075 | | 209,605 | | 290,543 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Bluefish | | | | | 5,000 | $900 |
| Cero, or kingfish | | | | | 74 | 7 |
| Flounders | | | | | 500 | 55 |
| Groupers | | | | | 27,758 | 1,019 |
| Grunts | | | | | 512 | 26 |
| King whiting | | | | | 100 | 12 |
| Menhaden | | | 29,484,600 | $88,453 | | |
| Mullet | | | | | 3,000 | 240 |
| Redfish, or red drum | | | | | 24 | 4 |
| Red snapper | | | | | 111,749 | 7,740 |
| Scup | | | | | 12,000 | 900 |
| Sea bass | | | 125 | 10 | 291,490 | 23,655 |
| Shad | 13,500 | $3,262 | 61,250 | 18,000 | 14,502 | 3,505 |
| Sharks | | | | | 1,289 | 30 |
| Sheepshead | | | 175 | 10 | | |
| Squeteague, or "sea trout" | | | 850 | 50 | 3,700 | 385 |
| Striped bass | | | 125 | 10 | | |
| Pilefish | | | | | 35,000 | 2,400 |
| Shrimp | | | 1,290,818 | 39,046 | | |
| Oysters, market: | | | | | | |
| Public | | | 37,800 | 1,400 | 412,930 | 28,364 |
| Private | | | | | 261,079 | 24,288 |
| Octopus | | | | | 2,731 | 268 |
| Terrapin | | | | | 2,030 | 419 |
| Total | 13,500 | 3,262 | 30,875,743 | 146,979 | 1,185,468 | 94,217 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF GEORGIA IN 1918, BY COUNTIES—Continued.

| Item. | Effingham. | | Glynn. | | Liberty. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | | | 30 | | | |
| On vessels transporting | | | 2 | | | |
| In shore fisheries | 3 | | 116 | | 16 | |
| Shoresmen | | | 382 | | 37 | |
| Total | 3 | | 530 | | 53 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Gasoline | | | 13 | $25,908 | | |
| Tonnage | | | 108 | | | |
| Outfit | | | | 3,875 | | |
| Vessels transporting, gasoline | | | 1 | 500 | | |
| Tonnage | | | 9 | | | |
| Outfit | | | | 125 | | |
| Boats: | | | | | | |
| Sail, row, etc. | 3 | $45 | 23 | 320 | 14 | $195 |
| Power | | | 52 | 46,725 | 1 | 600 |
| Apparatus, vessel fisheries: | | | | | | |
| Otter trawls | | | 9 | 545 | | |
| Tongs | | | 8 | 60 | | |
| Grabs | | | 8 | 12 | | |
| Apparatus, shore fisheries: | | | | | | |
| Haul seines | | | 2 | 80 | | |
| Gill nets | 3 | 100 | 6 | 15 | 4 | 45 |
| Lines | | | | 6 | | |
| Otter trawls | | | 48 | 2,400 | | |
| Tongs | | | 10 | 75 | 12 | 70 |
| Grabs | | | 10 | 15 | 12 | 12 |
| Shore and accessory property | | 5 | | 127,764 | | 13,500 |
| Cash capital | | | | 18,000 | | 800 |
| Total | | 150 | | 226,425 | | 15,222 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Croaker | | | 5,600 | $235 | | |
| Flounders | | | 10,000 | 575 | | |
| Hickory shad | | | | | 195 | $25 |
| King whiting | | | 26,200 | 1,397 | | |
| Mullet | | | 2,500 | 100 | | |
| Redfish, or red drum | | | 100 | 6 | | |
| Red snapper | | | 600 | 70 | | |
| Sea bass | | | 1,000 | 100 | | |
| Shad | 1,998 | $483 | | | 605 | 111 |
| Spot | | | 1,100 | 59 | | |
| Squeteague, or "sea trout" | | | 27,700 | 2,962 | | |
| Yellowtail, or "silver perch" | | | 2,000 | 100 | | |
| Crabs, hard | | | 8,455 | 504 | | |
| Shrimp | | | 4,412,647 | 132,350 | | |
| Clams, hard | | | 120 | 75 | | |
| Oysters, market: | | | | | | |
| Public | | | 5,600 | 400 | | |
| Private | | | 115,332 | 2,141 | 154,021 | 6,600 |
| Terrapin | | | 82 | 35 | | |
| Turtles | | | 11,250 | 100 | | |
| Total | 1,998 | 483 | 4,630,286 | 141,209 | 154,821 | 6,736 |

| Item. | McIntosh. | | Wayne. | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | | | | | 186 | |
| On vessels transporting | | | | | 2 | |
| In shore fisheries | 49 | | 20 | | 476 | |
| Shoresmen | 90 | | | | 1,016 | |
| Total | 139 | | 20 | | 1,680 | |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF GEORGIA IN 1918, BY COUNTIES—Continued.

| Item. | McIntosh. | | Wayne. | | Total. | |
|---|---|---|---|---|---|---|
| INVESTMENT. | Number. | Value. | Number. | Value. | Number. | Value. |
| Vessels fishing: | | | | | | |
| Gasoline | | | | | 27 | $119,848 |
| Tonnage | | | | | 499 | |
| Outfit | | | | | | 41,416 |
| Sail | | | | | 5 | 2,315 |
| Tonnage | | | | | 44 | |
| Outfit | | | | | | 325 |
| Vessels transporting, gasoline | | | | | 1 | 500 |
| Tonnage | | | | | 9 | |
| Outfit | | | | | | 125 |
| Boats: | | | | | | |
| Sail, row, etc. | 34 | $860 | 10 | $105 | 313 | 8,805 |
| Power | 11 | 3,400 | | | 99 | 77,400 |
| Apparatus, vessel fisheries: | | | | | | |
| Purse seines | | | | | 4 | 4,800 |
| Lines | | | | | | 105 |
| Otter trawls | | | | | 12 | 705 |
| Dredges | | | | | 6 | 300 |
| Tongs | | | | | 21 | 136 |
| Grabs | | | | | 21 | 24 |
| Apparatus, shore fisheries: | | | | | | |
| Haul seines | | | | | 2 | 80 |
| Gill nets | 18 | 2,425 | 33 | 325 | 130 | 5,955 |
| Cast nets | 1 | 3 | | | 1 | 3 |
| Lines | | 5 | | | | 13 |
| Otter trawls | 2 | 100 | | | 73 | 3,700 |
| Tongs | 8 | 60 | | | 190 | 1,040 |
| Grabs | 28 | 35 | | | 210 | 224 |
| Shore and accessory property | | 17,200 | | 10 | | 420,779 |
| Cash capital | | 3,000 | | | | 72,400 |
| Total | | 27,138 | | 440 | | 769,998 |
| PRODUCTS. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Bluefish | | | | | 5,600 | $900 |
| Catfish | 2,675 | $265 | | | 2,675 | 265 |
| Cero, or kingfish | | | | | 74 | 7 |
| Croaker | 300 | 20 | | | 5,900 | 255 |
| Flounders | 300 | 20 | | | 10,800 | 650 |
| Groupers | | | | | 27,758 | 1,019 |
| Grunts | | | | | 512 | 26 |
| Hickory shad | 7,887 | 1,350 | 4,925 | $660 | 13,007 | 2,035 |
| King whiting | 930 | 59 | | | 27,230 | 1,468 |
| Menhaden | | | | | 29,484,600 | 88,453 |
| Mullet | 5,150 | 353 | | | 10,650 | 693 |
| Redfish, or red drum | 1,550 | 102 | | | 1,674 | 112 |
| Red snapper | | | | | 112,349 | 7,810 |
| Scup | | | | | 12,000 | 900 |
| Sea bass | | | | | 292,615 | 23,765 |
| Shad | 2,485 | 519 | 6,200 | 1,080 | 100,540 | 26,960 |
| Sharks | | | | | 1,289 | 30 |
| Sheepshead | 225 | 15 | | | 400 | 25 |
| Spot | | | | | 1,100 | 59 |
| Squeteague, or "sea trout" | 7,300 | 700 | | | 39,550 | 4,097 |
| Striped bass | | | | | 125 | 10 |
| Sturgeon | 39,150 | 4,700 | | | 39,150 | 4,700 |
| Tilefish | | | | | 35,000 | 2,400 |
| Yellowtail, or "silver perch" | | | | | 2,000 | 100 |
| Crabs, hard | | | | | [1] 8,455 | 504 |
| Shrimp | 90,000 | 2,594 | | | 5,793,465 | 173,990 |
| Clams, hard | | | | | [2] 120 | 75 |
| Oysters, market: | | | | | | |
| Public | 25,200 | 720 | | | [3] 481,530 | 30,884 |
| Private | 97,860 | 10,000 | | | [4] 628,292 | 43,029 |
| Octopus | | | | | 2,731 | 268 |
| Terrapin | | | | | 2,112 | 454 |
| Turtles | | | | | 11,250 | 100 |
| Total | 281,012 | 21,417 | 11,125 | 1,740 | 37,153,953 | 416,043 |

[1] 25,365 in number. [2] 15 bushels. [3] 68,790 bushels. [4] 89,726 bushels.

FISHERIES BY APPARATUS.

The yield of all forms of apparatus in Georgia in 1918 amounted to 37,153,953 pounds, valued at $416,043. In the value of their product, otter trawls, employed chiefly in the taking of shrimp, ranked first, with a catch of 5,838,115 pounds, valued at $175,705. Exceeding all other forms of apparatus in quantity, but ranking second in the value of their catch, purse seines took 29,484,600 pounds of menhaden, valued at $88,453. The yield of the gill-net fishery amounted to 203,332 pounds, valued at $38,705, of which 100,540 pounds, valued at $26,960, were shad. The catch with lines was 505,712 pounds, valued at $38,224, the principal species taken by this apparatus in the order of their value being: Sea bass, red snapper, tilefish, and groupers. Oysters were taken with tongs to the amount of 486,444 pounds, or 69,492 bushels, valued at $32,029, and with grabs to the amount of 468,678 pounds, or 66,954 bushels, valued at $31,384. The combined take of oysters with these two forms of gear amounted to 136,446 bushels, valued at $63,413.

Aside from purse seines, lines, and otter trawls used in the vessel fisheries, the only other forms of apparatus employed were dredges, tongs, and grabs, all of which were engaged in taking oysters.

The bulk of the catch in the shore fisheries was made with otter trawls, gill nets, tongs, and grabs, the remainder being taken by hand and with lines, seines, and cast nets.

The products of the vessel and shore or boat fisheries are shown in the appended tables.

YIELD OF VESSEL FISHERIES OF GEORGIA IN 1918, BY COUNTIES, APPARATUS, AND SPECIES.

| Apparatus and species. | Camden. | | Chatham. | | Glynn. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: Menhaden | 29,484,600 | $88,453 | | | | | 29,484,600 | $88,453 |
| Lines: | | | | | | | | |
| Bluefish | | | 5,000 | $900 | | | 5,000 | 900 |
| Cero, or kingfish | | | 74 | 7 | | | 74 | 7 |
| Flounders | | | 500 | 55 | | | 500 | 55 |
| Groupers | | | 27,758 | 1,019 | | | 27,758 | 1,019 |
| Grunts | | | 512 | 26 | | | 512 | 26 |
| Redfish, or red drum | | | 24 | 4 | | | 24 | 4 |
| Red snapper | | | 111,749 | 7,740 | | | 111,749 | 7,740 |
| Scup | | | 12,000 | 900 | | | 12,000 | 900 |
| Sea bass | | | 291,490 | 23,655 | | | 291,490 | 23,655 |
| Sharks | | | 1,289 | 30 | | | 1,289 | 30 |
| Squeteague, or "sea trout" | | | 2,500 | 185 | | | 2,500 | 185 |
| Tilefish | | | 35,000 | 2,400 | | | 35,000 | 2,400 |
| Octopus | | | 2,731 | 268 | | | 2,731 | 268 |
| Total | | | 490,627 | 37,189 | | | 490,627 | 37,189 |
| Otter trawls: Shrimp | 155,655 | 4,600 | | | 410,665 | $11,800 | 566,320 | 16,400 |
| Dredges: Oysters, market, private | | | 116,900 | 9,100 | | | 116,900 | 9,100 |
| Tongs: Oysters, market— | | | | | | | | |
| Public | | | 39,900 | 2,100 | | | 39,900 | 2,100 |
| Private | | | 3,500 | 300 | 43,120 | 800 | 46,620 | 1,100 |
| Total | | | 43,400 | 2,400 | 43,120 | 800 | 86,520 | 3,200 |
| Grabs: Oysters, market— | | | | | | | | |
| Public | | | 37,275 | 1,875 | | | 37,275 | 1,875 |
| Private | | | 3,500 | 300 | 43,078 | 800 | 46,578 | 1,100 |
| Total | | | 40,775 | 2,175 | 43,078 | 800 | 83,853 | 2,975 |
| Grand total | 29,640,255 | 93,053 | 691,702 | 50,864 | 496,863 | 13,400 | 30,828,820 | 157,317 |

YIELD OF SHORE FISHERIES OF GEORGIA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES.

BY GILL NETS.

| Species. | Bryan. | | Camden. | | Chatham. | | Effingham. | | Glynn. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Flounders | | | | | | | | | 5,000 | $325 |
| King whiting | | | | | 100 | $12 | | | 5,000 | 325 |
| Mullet | | | | | 3,000 | 240 | | | | |
| Red snapper | | | | | | | | | 600 | 70 |
| Sea bass | | | | | | | | | 1,000 | 100 |
| Shad | 13,500 | $3,262 | 61,250 | $18,000 | 14,502 | 3,505 | 1,998 | $483 | | |
| Spot | | | | | | | | | 500 | 24 |
| Squeteague, or "sea trout" | | | | | 1,200 | 200 | | | 25,000 | 2,800 |
| Terrapin | | | | | 2,030 | 419 | | | | |
| Total | 13,500 | 3,262 | 61,250 | 18,000 | 20,832 | 4,376 | 1,998 | 483 | 37,100 | 3,644 |

| Species. | Liberty. | | McIntosh. | | Wayne. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Flounders | | | 150 | $10 | | | 5,150 | $335 |
| Hickory shad | 195 | $25 | 7,887 | 1,350 | 4,925 | $660 | 13,007 | 2,035 |
| King whiting | | | 30 | 2 | | | 5,130 | 339 |
| Mullet | | | 4,400 | 303 | | | 7,400 | 543 |
| Redfish, or red drum | | | 650 | 45 | | | 650 | 45 |
| Red snapper | | | | | | | 600 | 70 |
| Sea bass | | | | | | | 1,000 | 100 |
| Shad | 605 | 111 | 2,485 | 519 | 6,200 | 1,080 | 100,540 | 26,960 |
| Sheepshead | | | 75 | 5 | | | 75 | 5 |
| Spot | | | | | | | 500 | 24 |
| Squeteague, or "sea trout" | | | 1,900 | 130 | | | 28,100 | 3,130 |
| Sturgeon | | | 39,150 | 4,700 | | | 39,150 | 4,700 |
| Terrapin | | | | | | | 2,030 | 419 |
| Total | 800 | 136 | 56,727 | 7,064 | 11,125 | 1,740 | 203,332 | 38,705 |

BY SEINES, OTTER TRAWLS, CAST NETS, LINES, AND HAND.

| Apparatus and species. | Camden. | | Glynn. | | McIntosh. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Seines: | | | | | | | | |
| Croakers | | | 600 | $35 | | | 600 | $35 |
| King whiting | | | 1,200 | 72 | 300 | $17 | 1,500 | 89 |
| Mullet | | | 2,500 | 100 | | | 2,500 | 100 |
| Redfish, or red drum | | | 100 | 6 | 300 | 17 | 400 | 23 |
| Spot | | | 600 | 35 | | | 600 | 35 |
| Squeteague, or "sea trout" | | | 1,200 | 72 | 4,400 | 500 | 5,600 | 572 |
| Crabs, hard | | | 120 | 4 | | | 120 | 4 |
| Shrimp | | | 100 | 25 | | | 100 | 25 |
| Total | | | 6,420 | 349 | 5,000 | 534 | 11,420 | 883 |
| Otter trawls: | | | | | | | | |
| Croakers | | | 5,000 | 200 | | | 5,000 | 200 |
| Flounders | | | 5,000 | 250 | | | 5,000 | 250 |
| King whiting | | | 20,000 | 1,000 | | | 20,000 | 1,000 |
| Squeteague, or "sea trout" | | | 1,500 | 90 | | | 1,500 | 90 |
| Yellowtail, or "silver perch" | | | 2,000 | 100 | | | 2,000 | 100 |
| Shrimp | 1,135,163 | $34,446 | 4,001,882 | 120,525 | 90,000 | 2,594 | 5,227,045 | 157,565 |
| Turtles | | | 11,250 | 100 | | | 11,250 | 100 |
| Total | 1,135,163 | 34,446 | 4,046,632 | 122,265 | 90,000 | 2,594 | 5,271,795 | 159,305 |
| Cast nets: Mullet | | | | | 750 | 50 | 750 | 50 |
| Lines: | | | | | | | | |
| Hand lines— | | | | | | | | |
| Croakers | | | | | 300 | 20 | 300 | 20 |
| Flounders | | | | | 150 | 10 | 150 | 10 |
| King whiting | | | | | 600 | 40 | 600 | 40 |
| Redfish, or red drum | | | | | 600 | 40 | 600 | 40 |
| Sea bass | 125 | 10 | | | | | 125 | 10 |
| Sheepshead | 175 | 10 | | | 150 | 10 | 325 | 20 |
| Squeteague, or "sea trout" | 850 | 50 | | | 1,000 | 70 | 1,850 | 120 |
| Striped bass | 125 | 10 | | | | | 125 | 10 |
| Total | 1,275 | 80 | | | 2,800 | 190 | 4,075 | 270 |
| Set lines—catfish | | | | | 2,675 | 265 | 2,675 | 265 |
| Trot lines—crabs, hard | | | 8,335 | 500 | | | 8,335 | 500 |
| Total, by lines | 1,275 | 80 | 8,335 | 500 | 5,475 | 455 | 15,085 | 1,035 |
| Hand: | | | | | | | | |
| Terrapin | | | 82 | 35 | | | 82 | 35 |
| Clams, hard | | | 120 | 75 | | | 120 | 75 |
| Oyster, market, public | 37,800 | 1,400 | | | | | 37,800 | 1,400 |
| Total | 37,800 | 1,400 | 202 | 110 | | | 38,002 | 1,510 |

YIELD OF SHORE FISHERIES OF GEORGIA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY TONGS AND GRABS.

| Apparatus and species. | Chatham. | | Glynn. | | Liberty. | | McIntosh. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Tongs: Oysters, market: | | | | | | | | | | |
| Public | 167,881 | $12,195 | 2,800 | $200 | ..... | ..... | 12,600 | $360 | 183,281 | $12,755 |
| Private | 67,536 | 7,174 | 16,156 | 300 | 84,021 | $3,600 | 48,930 | 5,000 | 216,643 | 16,074 |
| Total | 235,417 | 19,369 | 18,956 | 500 | 84,021 | 3,600 | 61,530 | 5,360 | 399,924 | 28,829 |
| Grabs: Oysters, market: | | | | | | | | | | |
| Public | 167,874 | 12,194 | 2,800 | 200 | ..... | ..... | 12,600 | 360 | 183,274 | 12,754 |
| Private | 69,643 | 7,414 | 12,978 | 241 | 70,000 | 3,000 | 48,930 | 5,000 | 201,551 | 15,655 |
| Total | 237,517 | 19,608 | 15,778 | 441 | 70,000 | 3,000 | 61,530 | 5,360 | 384,825 | 28,409 |

INDUSTRIES.

*Wholesale trade.*—In 1918 there were 18 establishments, valued at $237,575, in operation. These used working cash capital to the amount of $33,000 and gave employment to 223 persons, to whom $66,900 were paid in wages.

*Canning industry.*—There were 10 establishments, valued at $265,444, engaged in canning oysters, shrimp, etc., in preparing cooked shrimp for market, and in crushing oyster shells. These used cash capital to the amount of $30,300 and gave employment to 634 persons, to whom $129,075 were paid in wages. The products included canned oysters to the value of $93,208; canned shrimp to the value of $355,548; 40 cases of canned flounders, valued at $200; 464,983 pounds of cooked shrimp, valued at $103,889; poultry grit from ground oyster shells, 127 tons, valued at $1,525; and lime from oyster shells, 18 tons, valued at $99.

PREPARED FISHERY PRODUCTS AND BY-PRODUCTS OF GEORGIA IN 1918.

| Item. | Number. | Value. |
|---|---|---|
| Establishments | 10 | $265,444 |
| Cash capital | ..... | 30,300 |
| Persons engaged | 634 | ..... |
| Wages paid | ..... | 129,075 |
| PRODUCTS. | | |
| Oysters, canned: | | |
| 4-ounce cans ... cases | [1] 500 | 1,300 |
| 5-ounce cans ... do | [1] 14,799 | 41,837 |
| Do ... do | [2] 6,329 | 35,576 |
| 6-ounce cans ... do | [2] 50 | 400 |
| 10-ounce cans ... do | [1] 2,364 | 13,645 |
| 12-ounce cans ... do | [1] 50 | 400 |
| Total | ..... | 93,208 |
| PRODUCTS—continued. | | |
| Shrimp, canned: | | |
| No. 1 cans ... cases | [2] 55,706 | $295,567 |
| No. 1½ cans ... do | [1] 10,740 | 59,981 |
| Total | ..... | 355,548 |
| Flounders, canned: 10-ounce cans ... cases | [2] 40 | 200 |
| Shrimp, cooked: | | |
| Meat ... pounds | 214,684 | 64,865 |
| Headless, cooked ... do | 198,945 | 33,582 |
| Whole, cooked ... do | 51,354 | 5,442 |
| Oyster shells: | | |
| Crushed, poultry grit, pounds | [3] 254,000 | 1,525 |
| Lime ... tons | 18 | 99 |

[1] Two dozen cans per case. [2] Four dozen cans per case.
[3] Includes oyster shells crushed in South Carolina.

## FISHERIES OF EAST COAST OF FLORIDA.

The statistics here presented are for the eastern coast of Florida and, among the South Atlantic States, were surpassed only by North Carolina. The number of persons employed was 3,330, of whom 395 were on fishing and transporting vessels, 2,104 in the shore or boat fisheries, and 831 in the wholesale fishery trade, the menhaden industry, and the oyster and shrimp canning industry. Compared with 1902, there has been an increase in the persons employed of 632.

The investment amounted to $2,210,679, which includes 30 fishing and transporting vessels, valued at $409,900, with a net tonnage of 814 tons and outfits valued at $75,137; 839 power boats, valued at $459,650; 607 sail, row, and other boats, valued at $20,180; fishing apparatus employed on vessels and boats, valued at $235,492; shore and accessory property to the value of $858,720; and working cash capital amounting to $151,600. Compared with 1902, the increase in the investment amounts to $1,855,844.

The products of eastern Florida amounted to 81,211,488 pounds, valued at $1,746,175, an increase of 61,627,223 pounds, or 314.67 per cent, in the quantity and $1,268,307, or 265.41 per cent, in the value as compared with 1902.

The 10 leading products arranged in order of value follow: Mullet, 10,417,889 pounds, valued at $397,147; shrimp, 8,867,918 pounds, valued at $266,651; Spanish mackerel, 3,061,965 pounds, valued at $218,085; menhaden, 48,362,600 pounds, valued at $210,175; cero and kingfish, 2,271,792 pounds, valued at $147,608; squeteague or "sea trout," 1,645,223 pounds, valued at $142,091; shad, 963,606 pounds, valued at $135,844; bluefish, 561,301 pounds, valued at $54,715; red and black drum, 900,091 pounds, valued at $24,638; and oysters, 458,990 pounds, or 65,570 bushels, valued at $20,128.

Compared with 1902, the increase in the catch of bluefish amounts to 481,801 pounds, or 606.03 per cent; of red and black drum, to 765,206, or 567.30 per cent; of mullet, to 3,076,973 pounds, or 41.91 per cent; of Spanish mackerel, to 2,402,877 pounds, or 364.57 per cent; of squeteague, to 746,660 pounds, or 83.09 per cent; and of shrimp, to 5,855,064 pounds, or 194.33 per cent. There has been a decrease in the catch of shad as compared with 1902, amounting to 855,825 pounds, or 47.04 per cent; and of oysters, of 1,704,493 pounds, or 243,499 bushels, or 78.78 per cent. No cero, kingfish (not king whiting), or menhaden were included in the returns for 1902.

A comparison of the fisheries of the east and west coast of Florida in 1918 is given on pages 116, 117.

### FISHERIES BY COUNTIES.

The statistics of the number of persons engaged, investment, and products of the fisheries of the eastern coast of Florida in 1918, by counties, are given in the table following.

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY COUNTIES.

| Item. | Brevard. | | Broward. | | Dade | | Duval. | | Lake. | |
|---|---|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | | | | | 114 | | 214 | | | |
| On vessels transporting | | | | | 9 | | | | | |
| In shore fisheries | 228 | | 2 | | 229 | | 167 | | 5 | |
| Shoresmen | | | | | 48 | | 163 | | | |
| Total | 228 | | 2 | | 400 | | 544 | | 5 | |
| INVESTMENT. | | | | | | | | | | |
| Vessels fishing: | | | | | | | | | | |
| Gasoline | | | | | 12 | $89,100 | 9 | $258,500 | | |
| Tonnage | | | | | 202 | | 467 | | | |
| Outfit | | | | | | 4,143 | | 48,997 | | |
| Vessels transporting: Gasoline | | | | | 5 | 2,300 | | | | |
| Tonnage | | | | | 36 | | | | | |
| Outfit | | | | | | 2,250 | | | | |
| Boats: | | | | | | | | | | |
| Sail, row etc. | 216 | $5,820 | 1 | $40 | | | 20 | 550 | 2 | $60 |
| Power | 98 | 29,100 | 1 | 250 | 124 | 59,300 | 73 | 20,250 | 1 | 250 |
| Apparatus, vessel fisheries: Purse seines | | | | | 12 | 22,400 | 9 | 22,500 | | |
| Apparatus, shore fisheries: | | | | | | | | | | |
| Haul seines | | | 1 | 175 | | | 8 | 280 | 1 | 200 |
| Gill nets | 182 | 26 800 | | | 43 | 6,450 | 92 | 12,800 | | |
| Cast nets | | | | | | | 6 | 30 | | |
| Dip nets | | | | | 3 | 3 | | | | |
| Lines | | 40 | | 5 | | 920 | | 190 | | |
| Traps | | | | | | | 20 | 50 | | |
| Gaffs | | | | | 3 | 3 | | | | |
| Tongs | | | | | | | 10 | 70 | | |
| Shore and accessory property | | 19,000 | | 50 | | 104,806 | | 583,835 | | 500 |
| Cash capital | | | | | | 18,000 | | 55,000 | | |
| Total | | 80,730 | | 520 | | 329,675 | | 1,003,052 | | 1,010 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | | | | | | | 30,000 | $450 |
| Amberfish | | | 150 | $12 | 200 | $8 | | | | |
| Angelfish | | | | | 175 | 7 | | | | |
| Barracuda | | | 150 | 12 | 200 | 8 | | | | |
| Black drum | 36,500 | $1,095 | 160 | 8 | | | 32,400 | $1,020 | | |
| Bluefish | | | 300 | 60 | 23,864 | 1,866 | 1,600 | 165 | | |
| Blue runner or hardtail | | | | | 2,500 | 82 | | | | |
| Bonito | | | 100 | 10 | 50 | 3 | | | | |
| Butterfish | | | | | 4,200 | 170 | | | | |
| Cero and kingfish | | | 300 | 45 | 973,331 | 68,133 | | | | |
| Cowfish and "shellfish" | | | | | 50 | 2 | | | | |
| Crevalle | 3,300 | 132 | 800 | 80 | 800 | 20 | | | | |
| Flounders | 1,210 | 48 | | | | | 400 | 40 | | |
| Groupers | | | 200 | 20 | 41,978 | 2,518 | | | | |
| Grunts | | | 400 | 40 | 10,650 | 426 | | | | |
| Hogfish | | | | | 150 | 6 | | | | |
| King whiting | 13,900 | 1,132 | | | | | 32,000 | 2,240 | | |
| Leather jacket or "turbot" | | | | | 200 | 8 | | | | |
| Menhaden | | | | | | | 42,635,400 | 181,201 | | |
| Moonfish | | | 100 | 8 | 540 | 16 | | | | |
| Mullet | 4,292,600 | 171,704 | 500 | 50 | 2,651,085 | 90,395 | 78,000 | 4,740 | | |
| Permit | | | 50 | 5 | | | | | | |
| Pigfish | 2,000 | 64 | | | 100 | 4 | | | | |
| Pinfish or sailor's choice | 43,150 | 1,386 | 200 | 20 | 200 | 10 | | | | |
| Pompano | 100 | 15 | 30 | 6 | 446 | 68 | 240 | 36 | | |
| Porgies | | | | | 5,000 | 300 | | | | |
| Porkfish | | | | | 350 | 17 | | | | |
| Redfish or red drum | 31,400 | 1,256 | 100 | 12 | | | 26,400 | 1,680 | | |
| Sea bass | | | | | 100 | 8 | 20,000 | 1,600 | | |
| Sergeantfish or snook | 430 | 15 | 350 | 28 | | | | | | |
| Shad | | | | | | | 265,608 | 36,855 | 4,850 | 678 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY COUNTIES—Continued.

| Item. | Brevard. | | Broward. | | Dade. | | Duval. | | Lake. | |
|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCTS—con. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Sharks | | | | | | | 50,000 | $250 | | |
| Sheepshead | 11,945 | $478 | 50 | $5 | 100 | $6 | 14,000 | 840 | | |
| Snapper: | | | | | | | | | | |
| Mangrove | 200 | 8 | 600 | 60 | 2,700 | 135 | | | | |
| Mutton | 1,400 | 54 | 700 | 70 | 7,500 | 300 | | | | |
| Red | | | | | | | 19,200 | 1,920 | | |
| Spanish mackerel | | | | | 870,415 | 59,806 | | | | |
| Spot | 20,500 | 675 | | | | | 1,200 | 96 | | |
| Squeteague or "sea trout" | 591,482 | 50,291 | | | 1,000 | 80 | 88,000 | 7,200 | | |
| Yellowtail or "silver perch" | | | | | 450 | 18 | | | | |
| Crabs, hard | | | | | | | 52,000 | 1,800 | | |
| Sea crawfish or spiny lobster | | | | | 21,408 | 1,070 | | | | |
| Oysters, market, public | | | | | | | 31,500 | 1,800 | | |
| Turtles | | | | | 6,000 | 360 | | | | |
| Total | 5,050,117 | 228,353 | 5,240 | 551 | 4,625,742 | 225,856 | 43,347,948 | 243,483 | 34,850 | $1,128 |

| Item. | Nassau. | | Palm Beach. | | Putnam. | | Seminole. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 52 | | | | | | | |
| In shore fisheries | 319 | | 551 | | 142 | | 59 | |
| Shoresmen | 541 | | 42 | | | | | |
| Total | 912 | | 593 | | 142 | | 59 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: Gasoline | 2 | $30,000 | | | | | | |
| Tonnage | 56 | | | | | | | |
| Outfit | | 8,147 | | | | | | |
| Boats: | | | | | | | | |
| Sail, row, etc. | 43 | 2,380 | 55 | $3,505 | 88 | $2,200 | 49 | $1,225 |
| Power | 132 | 154,700 | 229 | 130,500 | 18 | 5,450 | 12 | 2,450 |
| Apparatus, vessel fisheries: | | | | | | | | |
| Purse seines | 4 | 8,000 | | | | | | |
| Apparatus, shore fisheries: | | | | | | | | |
| Purse seines | | | 2 | 3,000 | | | | |
| Haul seines | | | 23 | 18,900 | 15 | 3,200 | 28 | 1,575 |
| Gill nets | 16 | 1,050 | 181 | 25,975 | 36 | 4,000 | | |
| Lines | | | | 1,570 | | | | |
| Otter trawls | 250 | 16,250 | | | | | | |
| Tongs | | | 1 | 7 | | | | |
| Shore and accessory property | | 500 | | 92,095 | | 3,900 | | 3,000 |
| Cash capital | | 41,000 | | 18,100 | | | | |
| Total | | 262,027 | | 293,652 | | 18,750 | | 8,250 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | | | 334,526 | $5,018 | | |
| Amberfish | | | 11,336 | $370 | | | | |
| Angelfish | | | 1,170 | 37 | | | | |
| Barracuda | | | 2,515 | 76 | | | | |
| Black drum | | | 23,950 | 503 | | | | |
| Bluefish | | | 362,339 | 36,532 | | | | |
| Blue runner or hardtail | | | 47,600 | 1,447 | | | | |
| Bonito | | | 7,841 | 236 | | | | |
| Catfish | | | 1,600 | 32 | | | | |
| Cero and kingfish | | | 1,298,161 | 79,430 | | | | |
| Crevalle | | | 61,910 | 2,021 | | | | |
| Croaker | | | 34,388 | 1,031 | | | | |
| Flounders | | | 430 | 17 | | | | |
| Groupers | | | 32,605 | 1,084 | | | | |
| Grunts | | | 18,460 | 595 | | | | |
| Hogfish | | | 100 | 5 | | | | |
| Jewfish | | | 7,117 | 222 | | | | |
| King whiting | 100,000 | $2,000 | 13,211 | 530 | | | | |
| Ladyfish | | | 1,280 | 13 | | | | |
| Leather jacket or "turbot" | | | 170 | 5 | | | | |
| Menhaden | 5,660,000 | 28,300 | 57,000 | 570 | | | | |
| Moonfish | | | 7,230 | 218 | | | | |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY COUNTIES—Continued.

| Item. | Nassau. | | Palm Beach. | | Putnam. | | Seminole. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS—continued. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Mullet | | | 1,016,734 | $37,466 | | | | |
| Parrotfish | | | 3,500 | 70 | | | | |
| Permit | | | 6,465 | 213 | | | | |
| Pigfish | | | 4,932 | 148 | | | | |
| Pinfish or sailor's choice | | | 34,135 | 1,034 | | | | |
| Pompano | | | 60,029 | 9,568 | | | | |
| Porgies | | | 950 | 28 | | | | |
| Porkfish | | | 1,360 | 40 | | | | |
| Redfish or red drum | | | 32,355 | 1,167 | | | | |
| Sea bass | | | 19,821 | 1,021 | | | | |
| Sea gar or needlefish | | | 100 | 5 | | | | |
| Sergeantfish or snook | | | 81,074 | 2,604 | | | | |
| Shad | 61,250 | $18,000 | | | 456,471 | $56,786 | 102,161 | $13,277 |
| Sharks | | | 13,350 | 272 | | | | |
| Sheepshead | | | 16,686 | 608 | | | | |
| Snapper: | | | | | | | | |
| Mangrove | | | 16,195 | 666 | | | | |
| Mutton | | | 93,385 | 2,994 | | | | |
| Red | | | 1,000 | 80 | | | | |
| Spanish mackerel | | | 1,493,319 | 102,290 | | | | |
| Spot | | | 31,040 | 939 | | | | |
| Squeteague or "sea trout" | | | 135,835 | 12,567 | | | | |
| Yellowtail or "silver perch" | | | 20,230 | 607 | | | | |
| Shrimp | 8,806,568 | 264,197 | | | | | | |
| Sea crawfish or spiny lobster | | | 2,095 | 104 | | | | |
| Oysters, market: | | | | | | | | |
| Public | 90,293 | 3,315 | 2,100 | 195 | | | | |
| Private | 135,065 | 3,994 | 10,500 | 1,000 | | | | |
| Turtles | | | 250 | 12 | | | | |
| Conch meat | | | 7,000 | 700 | | | | |
| Total | 14,853,176 | 319,806 | 5,094,853 | 301,372 | 790,997 | 61,804 | 102,161 | 13,277 |

| Item. | St. John. | | St. Lucie. | | Volusia. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | | | | | | | 380 | |
| On vessels transporting | | | 6 | | | | 15 | |
| In shore fisheries | 34 | | 280 | | 88 | | 2,104 | |
| Shoresmen | | | 37 | | | | 831 | |
| Total | 34 | | 323 | | 88 | | 3,330 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: Gasoline | | | | | | | 23 | $377,500 |
| Tonnage | | | | | | | 725 | |
| Outfit | | | | | | | | 71,287 |
| Vessels transporting: Gasoline | | | 2 | $20,000 | | | 7 | 32,300 |
| Tonnage | | | 53 | | | | 89 | |
| Outfit | | | | 1,600 | | | | 3,850 |
| Boats: | | | | | | | | |
| Sail, row, etc | 15 | $375 | 52 | 2,185 | 66 | $1,840 | 607 | 20,180 |
| Power | 9 | 2,550 | 120 | 49,250 | 22 | 5,600 | 839 | 459,650 |
| Apparatus, vessel fisheries: | | | | | | | | |
| Purse seines | | | | | | | 25 | 52,900 |
| Apparatus, shore fisheries: | | | | | | | | |
| Purse seines | | | | | | | 2 | 3,000 |
| Haul seines | 5 | 750 | 26 | 32,100 | 8 | 850 | 115 | 58,030 |
| Gill nets | 5 | 500 | 115 | 17,400 | 45 | 6,750 | 715 | 101,725 |
| Cast nets | 10 | 50 | | | | | 16 | 80 |
| Dip nets | | | | | | | 3 | 3 |
| Lines | | 140 | | | | 100 | | 2,965 |
| Otter trawls | 5 | 250 | | | | | 255 | 16,500 |
| Traps | | | | | | | 20 | 50 |
| Spears | 12 | 12 | | | | | 12 | 12 |
| Gaffs | | | | | | | 3 | 3 |
| Tongs | 5 | 30 | 2 | 14 | 14 | 98 | 32 | 219 |
| Rakes | 5 | 5 | | | | | 5 | 5 |
| Shore and accessory property | | 500 | | 45,034 | | 5,500 | | 858,720 |
| Cash capital | | | | 19,500 | | | | 151,600 |
| Total | | 5,062 | | 187,083 | | 20,738 | | 2,210,679 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY COUNTIES—Continued.

| Item. | St. John. | | St. Lucie. | | Volusia. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | | | 327,739 | $4,905 | 692,265 | $10,373 |
| Amberfish | | | | | | | 11,686 | 390 |
| Angelfish | | | 1,570 | $47 | | | 2,915 | 91 |
| Barracuda | | | 50 | 1 | | | 2,915 | 97 |
| Black drum | 16,930 | $526 | 407,192 | 8,408 | 14,200 | 618 | 531,332 | 12,178 |
| Bluefish | 900 | 92 | 171,648 | 15,935 | 650 | 65 | 561,301 | 54,715 |
| Blue runner or hardtail | | | 650 | 13 | | | 50,750 | 1,542 |
| Bonito | 150 | 9 | | | | | 8,141 | 258 |
| Butterfish | | | | | | | 4,200 | 170 |
| Catfish | | | 12,300 | 246 | | | 13,900 | 278 |
| Cero and kingfish | | | | | | | 2,271,792 | 147,608 |
| Cowfish and "shellfish" | | | | | | | 50 | 2 |
| Crevalle | | | 254,220 | 7,574 | | | 321,030 | 9,833 |
| Croaker | 2,150 | 84 | 87,740 | 2,332 | | | 124,278 | 3,447 |
| Flounders | 7,670 | 460 | 2,980 | 140 | 800 | 32 | 13,490 | 737 |
| Groupers | | | | | | | 74,783 | 3,622 |
| Grunts | 150 | 9 | 84,019 | 2,559 | | | 113,679 | 3,629 |
| Hogfish | | | | | | | 250 | 11 |
| Jewfish | 220 | 9 | 5,150 | 134 | | | 12,487 | 365 |
| King whiting | 3,150 | 176 | 82,797 | 4,855 | 51,950 | 4,671 | 297,008 | 15,604 |
| Ladyfish | | | | | | | 1,280 | 13 |
| Leather jacket or "turbot" | | | | | | | 370 | 13 |
| Menhaden | | | 10,200 | 104 | | | 48,362,600 | 210,175 |
| Moonfish | | | 100 | 3 | | | 7,970 | 245 |
| Mullet | 12,140 | 529 | 1,423,870 | 54,535 | 942,960 | 37,728 | 10,417,889 | 397,147 |
| Parrotfish | | | | | | | 3,500 | 70 |
| Permit | 115 | 5 | 460 | 11 | 200 | 10 | 7,290 | 244 |
| Pigfish | 300 | 12 | 6,630 | 199 | 800 | 24 | 14,762 | 451 |
| Pinfish or sailor's choice | 1,180 | 47 | 359,270 | 10,404 | 4,400 | 132 | 442,535 | 13,033 |
| Pompano | 825 | 124 | 67,749 | 9,672 | 4,000 | 400 | 133,419 | 19,889 |
| Porgies | | | | | | | 5,950 | 328 |
| Porkfish | | | | | | | 1,710 | 57 |
| Redfish or red drum | 9,230 | 431 | 259,874 | 7,482 | 9,400 | 432 | 368,759 | 12,460 |
| Sea bass | 1,410 | 70 | | | | | 41,331 | 2,699 |
| Sea gar or needlefish | | | | | | | 100 | 5 |
| Sergeantfish or snook | | | 232,920 | 5,982 | | | 314,774 | 8,629 |
| Shad | | | | | 73,266 | 10,248 | 963,606 | 135,844 |
| Sharks | | | 425 | 4 | | | 63,775 | 526 |
| Sheepshead | 465 | 29 | 60,557 | 2,125 | 500 | 24 | 104,303 | 4,115 |
| Snapper: | | | | | | | | |
| Mangrove | | | 3,491 | 106 | | | 23,186 | 975 |
| Mutton | | | 138,093 | 3,981 | | | 241,078 | 7,399 |
| Red | | | | | | | 20,200 | 2,000 |
| Spanish mackerel | 1,510 | 151 | 696,721 | 55,838 | | | 3,061,965 | 218,085 |
| Spot | 3,590 | 144 | 331,140 | 9,938 | 5,560 | 206 | 393,030 | 11,998 |
| Squeteague or "sea trout" | 25,372 | 1,947 | 667,534 | 57,746 | 136,000 | 12,260 | 1,645,223 | 142,091 |
| Yellowtail or "silver perch" | | | 23,290 | 654 | | | 43,970 | 1,279 |
| Shrimp | 61,350 | 2,454 | | | | | 8,867,918 | 266,651 |
| Crabs, hard | | | | | | | [1] 52,000 | 1,800 |
| Sea crawfish or spiny lobster | | | | | | | 23,503 | 1,174 |
| Clams, hard | 2,400 | 600 | | | | | [2] 2,400 | 600 |
| Oysters, market: | | | | | | | | |
| Public | 31,500 | 2,250 | 4,900 | 455 | 153,132 | 7,119 | [3] 313,425 | 15,134 |
| Private | | | | | | | [4] 145,565 | 4,994 |
| Turtles | | | 600 | 30 | | | 6,850 | 402 |
| Conch meat | | | | | | | 7,000 | 700 |
| Total | 182,707 | 10,158 | 5,398,140 | 261,513 | 1,725,557 | 78,874 | 81,211,488 | 1,746,175 |

[1] 156,000 in number. [2] 300 bushels. [3] 44,775 bushels. [4] 20,795 bushels.

FISHERIES BY APPARATUS.

Gill nets were the most productive form of apparatus employed in the fisheries of the east coast of Florida in 1918, the catch amounting to 11,636,930 pounds, valued at $671,599. The principal species taken with this form of apparatus were: Mullet, 6,882,403 pounds, valued at $275,395; Spanish mackerel, 2,301,590 pounds, valued at $166,592; shad, 591,719 pounds, valued at $87,789; squeteague or "sea trout," 1,030,347 pounds, valued at $86,549; and bluefish, 374,340 pounds, valued at $36,156. Purse seines, taking mostly menhaden, mullet, and Spanish mackerel, yielded 51,446,435 pounds,

valued at $332,812. Other leading forms of apparatus, in the order of their importance, based on the value of their catch, were: Otter trawls with 8,967,918 pounds, principally shrimp, valued at $268,651; haul seines with 5,699,060 pounds, valued at $254,635; and lines with 2,914,917 pounds, valued at $192,880.

The total yield of all forms of apparatus employed in the fisheries of the east coast of Florida amounted to 81,211,488 pounds, valued at $1,746,175, of which 63.04 per cent of the quantity and 18.63 per cent of the value are credited to purse seines operated in the vessel fisheries, the remainder being credited to the various forms of apparatus employed in the shore fisheries.

The products of the vessel and shore fisheries of the east coast of Florida in 1918 are shown in the following tables, by counties, apparatus, and species:

YIELD OF VESSEL FISHERIES OF EAST COAST OF FLORIDA IN 1918, BY PURSE SEINES, COUNTIES, AND SPECIES.

| Species. | Dade. | | Duval. | | Nassau. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Bluefish | 23,564 | $1,836 | | | | | 23,564 | $1,836 |
| Bluerunner or hardtail | 900 | 34 | | | | | 900 | 34 |
| Butterfish | 4,200 | 170 | | | | | 4,200 | 170 |
| Menhaden | | | 42,635,400 | $181,201 | 5,660,000 | $28,300 | 48,295,400 | 209,501 |
| Mullet | 2,242,485 | 74,051 | | | | | 2,242,485 | 74,051 |
| Pompano | 86 | 14 | | | | | 86 | 14 |
| Sharks | | | 50,000 | 250 | | | 50,000 | 250 |
| Spanish mackerel | 579,800 | 39,456 | | | | | 579,800 | 39,456 |
| Total | 2,851,035 | 115,561 | 42,685,400 | 181,451 | 5,660,000 | 28,300 | 51,196,435 | 325,312 |

YIELD OF SHORE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES.

BY SEINES.

| Species. | Broward. | | Duval. | | Lake. | | Palm Beach. | | Putnam. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | | | 30,000 | $450 | | | 334,526 | $5,018 |
| Angelfish | | | | | | | 400 | $12 | | |
| Barracuda | | | | | | | 100 | 3 | | |
| Black drum | 160 | $8 | 2,400 | $120 | | | 21,500 | 430 | | |
| Bluefish | 300 | 60 | 100 | 15 | | | 64,340 | 6,834 | | |
| Blue runner or hardtail | | | | | | | 25,175 | 775 | | |
| Bonito | | | | | | | 2,190 | 66 | | |
| Catfish | | | | | | | 1,600 | 32 | | |
| Cero or kingfish | | | | | | | 18,000 | 1,080 | | |
| Crevalle | 800 | 80 | | | | | 43,830 | 1,465 | | |
| Croaker | | | | | | | 21,850 | 655 | | |
| Flounders | | | 400 | 40 | | | 230 | 7 | | |
| Grunts | 200 | 20 | | | | | 7,390 | 261 | | |
| Hogfish | | | | | | | 100 | 5 | | |
| Jewfish | | | | | | | 1,450 | 43 | | |
| King whiting | | | 8,000 | 800 | | | 7,936 | 291 | | |
| Ladyfish | | | | | | | 1,280 | 13 | | |
| Menhaden | | | | | | | 57,000 | 570 | | |
| Moonfish | 100 | 8 | | | | | 1,475 | 46 | | |
| Mullet | 500 | 50 | 16,000 | 1,280 | | | [1] 727,891 | 26,368 | | |
| Parrotfish | | | | | | | 3,500 | 70 | | |
| Permit | 50 | 5 | | | | | 4,130 | 142 | | |
| Pigfish | | | | | | | 3,800 | 114 | | |
| Pinfish or "sailor's choice" | 200 | 20 | | | | | 31,310 | 949 | | |
| Pompano | 30 | 6 | 240 | 36 | | | 41,427 | 6,604 | | |
| Porkfish | | | | | | | 100 | 3 | | |
| Redfish or red drum | | | 2,400 | 240 | | | 21,285 | 682 | | |

YIELD OF SHORE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY SEINES—Continued.

| Species. | Broward. | | Duval. | | Lake. | | Palm Beach. | | Putnam. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Sea gar or needlefish | | | | | | | 100 | $5 | | |
| Sergeantfish or snook | 150 | $12 | | | | | 59,376 | 1,871 | | |
| Shad | | | | | 4,850 | $678 | | | 191,610 | $23,852 |
| Sharks | | | | | | | 5,100 | 102 | | |
| Sheepshead | | | | | | | 9,715 | 298 | | |
| Snapper: | | | | | | | | | | |
| Mangrove | 300 | 30 | | | | | 1,920 | 59 | | |
| Mutton | 600 | 60 | | | | | 47,680 | 1,430 | | |
| Spanish mackerel | | | | | | | 166,122 | 10,683 | | |
| Spot | | | 1,200 | $96 | | | 22,800 | 692 | | |
| Squeteague or "sea trout" | | | 8,000 | 800 | | | 29,761 | 2,530 | | |
| Yellowtail or "silver perch" | | | | | | | 19,020 | 571 | | |
| Sea crawfish or spiny lobster | | | | | | | 652 | 33 | | |
| Turtles | | | | | | | 250 | 12 | | |
| Total | 3,390 | 359 | 38,740 | 3,427 | 34,850 | 1,128 | 1,471,785 | 65,806 | 526,136 | 28,870 |

| Species. | Seminole. | | St. Lucie. | | St. John. | | Volusia. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Alewives | | | | | | | 327,739 | $4,905 | 692,265 | $10,373 |
| Angelfish | | | 1,470 | $44 | | | | | 1,870 | 56 |
| Barracuda | | | 50 | 1 | | | | | 150 | 4 |
| Black drum | | | 406,292 | 8,388 | 7,120 | $214 | 9,600 | 480 | 447,072 | 9,640 |
| Bluefish | | | 46,610 | 4,629 | 150 | 15 | 650 | 65 | 112,150 | 11,618 |
| Blue runner or hardtail | | | 650 | 13 | | | | | 25,825 | 788 |
| Bonito | | | | | | | | | 2,190 | 66 |
| Catfish | | | 12,300 | 246 | | | | | 13,900 | 278 |
| Cero or kingfish | | | | | | | | | 18,000 | 1,080 |
| Crevalle | | | 250,300 | 7,457 | | | | | 294,930 | 9,002 |
| Croaker | | | 87,740 | 2,332 | 1,250 | 50 | | | 110,840 | 3,037 |
| Flounders | | | 2,980 | 140 | | | | | 3,610 | 187 |
| Grunts | | | 78,889 | 2,365 | | | | | 86,479 | 2,646 |
| Hogfish | | | | | | | | | 100 | 5 |
| Jewfish | | | 5,150 | 134 | | | | | 6,600 | 177 |
| King whiting | | | 78,360 | 4,480 | 1,850 | 111 | 51,300 | 4,617 | 147,446 | 10,299 |
| Ladyfish | | | | | | | | | 1,280 | 13 |
| Menhaden | | | 10,200 | 104 | | | | | 67,200 | 674 |
| Moonfish | | | 100 | 3 | | | | | 1,675 | 57 |
| Mullet | | | 527,400 | 18,785 | | | 960 | 48 | 1,272,751 | 46,531 |
| Parrotfish | | | | | | | | | 3,500 | 70 |
| Permit | | | 460 | 11 | 115 | 5 | 200 | 10 | 4,955 | 173 |
| Pigfish | | | 5,400 | 162 | 150 | 6 | | | 9,350 | 282 |
| Pinfish or "sailor's choice" | | | 349,610 | 10,095 | 560 | 23 | | | 381,709 | 11,087 |
| Pompano | | | 57,435 | 8,615 | 625 | 94 | 4,000 | 400 | 103,757 | 15,755 |
| Porkfish | | | | | | | | | 100 | 3 |
| Redfish or red drum | | | 247,824 | 7,052 | 6,200 | 310 | 4,000 | 240 | 281,709 | 8,524 |
| Sea gar or needlefish | | | | | | | | | 100 | 5 |
| Sergeantfish or snook | | | 221,065 | 5,637 | | | | | 280,591 | 7,520 |
| Shad | 102,161 | $13,277 | | | | | 73,266 | 10,248 | 371,887 | 48,055 |
| Sharks | | | 425 | 4 | | | | | 5,525 | 106 |
| Sheepshead | | | 58,475 | 2,059 | 210 | 13 | 200 | 12 | 68,600 | 2,382 |
| Snapper: | | | | | | | | | | |
| Mangrove | | | 825 | 26 | | | | | 3,045 | 115 |
| Mutton | | | 137,293 | 3,953 | | | | | 185,573 | 5,443 |
| Spanish mackerel | | | 6,973 | 627 | | | | | 173,095 | 11,310 |
| Spot | | | 325,920 | 9,776 | 1,340 | 54 | 1,960 | 98 | 353,220 | 10,716 |
| Squeteague or "sea trout" | | | 314,105 | 27,562 | 8,342 | 665 | 12,000 | 1,200 | 372,208 | 32,758 |
| Yellowtail or "silver perch" | | | 23,290 | 654 | | | | | 42,310 | 1,225 |
| Sea crawfish or spiny lobster | | | | | | | | | 652 | 33 |
| Turtles | | | 600 | 30 | | | | | 850 | 42 |
| Total | 102,161 | 13,277 | 3,258,191 | 125,385 | 27,932 | 1,560 | 485,875 | 22,323 | 5,949,060 | 262,135 |

[1] Includes 250,000 pounds of mullet, valued at $7,500, caught with purse seines.

YIELD OF SHORE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY GILL NETS.

| Species. | Brevard. | | Dade. | | Duval. | | Nassau. | | Palm Beach. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Angelfish | | | | | | | | | 770 | $25 |
| Barracuda | | | | | | | | | 2,235 | 67 |
| Black drum | 36,500 | $1,095 | | | | | | | 2,450 | 73 |
| Bluefish | | | | | | | | | 249,202 | 24,838 |
| Blue runner or hardtail | | | 1,200 | $36 | | | | | 22,175 | 665 |
| Bonito | | | | | | | | | 4,191 | 126 |
| Crevalle | 3,300 | 132 | 600 | 18 | | | | | 11,975 | 359 |
| Croaker | | | | | | | | | 12,538 | 376 |
| Flounders | 1,210 | 48 | | | | | | | 100 | 5 |
| Grunts | | | | | | | | | 5,230 | 159 |
| King whiting | 13,900 | 1,132 | | | | | | | 5,275 | 239 |
| Moonfish | | | 500 | 15 | | | | | 5,755 | 172 |
| Mullet | 4,292,600 | 171,704 | 408,600 | 16,344 | 50,000 | $2,620 | | | 288,843 | 11,098 |
| Permit | | | | | | | | | 2,335 | 71 |
| Pigfish | 2,000 | 64 | | | | | | | 1,132 | 34 |
| Pinfish or sailor's choice | 43,150 | 1,386 | | | | | | | 2,825 | 85 |
| Pompano | 100 | 15 | | | | | | | 18,522 | 2,948 |
| Porgies | | | | | | | | | 100 | 3 |
| Porkfish | | | | | | | | | 1,260 | 37 |
| Red drum | 31,400 | 1,256 | | | | | | | 10,270 | 453 |
| Sea bass | | | | | | | | | 700 | 35 |
| Sergeantfish or snook | 430 | 15 | | | | | | | 7,341 | 221 |
| Shad | | | | | 265,608 | 36,855 | 61,250 | $18,000 | | |
| Sharks | | | | | | | | | 7,750 | 155 |
| Sheepshead | 11,945 | 478 | | | | | | | 3,890 | 162 |
| Snapper: | | | | | | | | | | |
| Mangrove | 200 | 8 | | | | | | | 10,485 | 419 |
| Mutton | 1,400 | 54 | | | | | | | 33,420 | 1,027 |
| Spanish mackerel | | | 289,835 | 20,288 | | | | | 1,322,007 | 91,093 |
| Spot | 20,500 | 675 | | | | | | | 8,240 | 247 |
| Squeteague or "sea trout" | 518,400 | 42,252 | | | | | | | 67,198 | 6,149 |
| Yellowtail or "silver perch" | | | | | | | | | 1,210 | 36 |
| Sea crawfish or spiny lobster | | | | | | | | | 1,443 | 71 |
| Total | 4,977,035 | 220,314 | 700,735 | 36,701 | 315,608 | 39,475 | 61,250 | 18,000 | 2,110,867 | 141,448 |

| Species. | Putnam. | | St. Lucie. | | St. John. | | Volusia. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Angelfish | | | 100 | $3 | | | | | 1,870 | $28 |
| Barracuda | | | | | | | | | 2,235 | 67 |
| Black drum | | | 900 | 20 | 8,000 | $240 | 4,600 | $138 | 52,450 | 1,566 |
| Bluefish | | | 125,038 | 11,306 | 100 | 12 | | | 374,340 | 36,156 |
| Blue runner or hardtail | | | | | | | | | 23,375 | 701 |
| Bonito | | | | | | | | | 4,191 | 126 |
| Crevalle | | | 3,920 | 117 | | | | | 19,795 | 626 |
| Croaker | | | | | 200 | 6 | | | 12,738 | 382 |
| Flounders | | | | | | | 800 | 32 | 2,110 | 85 |
| Grunts | | | 5,130 | 194 | | | | | 10,360 | 353 |
| King whiting | | | 4,437 | 375 | 1,300 | 65 | 650 | 54 | 25,562 | 1,865 |
| Moonfish | | | | | | | | | 6,255 | 187 |
| Mullet | | | 896,470 | 35,750 | 3,890 | 199 | 942,000 | 37,680 | 6,882,403 | 275,395 |
| Permit | | | | | | | | | 2,335 | 71 |
| Pigfish | | | 1,230 | 37 | 150 | 6 | 800 | 24 | 5,312 | 165 |
| Pinfish or sailor's choice | | | 9,660 | 309 | 210 | 8 | 4,400 | 132 | 60,245 | 1,920 |
| Pompano | | | 10,314 | 1,057 | 200 | 30 | | | 29,136 | 4,050 |
| Porgies | | | | | | | | | 100 | 3 |
| Porkfish | | | | | | | | | 1,260 | 37 |
| Red drum | | | 12,050 | 430 | 1,830 | 73 | 5,400 | 192 | 60,950 | 2,404 |
| Sea bass | | | | | | | | | 700 | 35 |
| Sergeantfish or snook | | | 11,855 | 345 | | | | | 19,626 | 581 |
| Shad | 264,861 | $32,934 | | | | | | | 591,719 | 87,789 |
| Shark | | | | | | | | | 7,750 | 155 |
| Sheepshead | | | 2,082 | 66 | 175 | 11 | 300 | 12 | 18,392 | 729 |
| Snapper: | | | | | | | | | | |
| Mangrove | | | 2,666 | 80 | | | | | 13,351 | 507 |
| Mutton | | | 800 | 28 | | | | | 35,620 | 1,109 |
| Spanish mackerel | | | 689,748 | 55,211 | | | | | 2,301,590 | 166,592 |
| Spot | | | 5,220 | 162 | 1,600 | 64 | 3,600 | 108 | 39,160 | 1,256 |
| Squeteague or "sea trout" | | | 353,429 | 30,183 | 7,320 | 505 | 84,000 | 7,460 | 1,030,347 | 86,549 |
| Yellowtail or "silver perch" | | | | | | | | | 1,210 | 36 |
| Sea crawfish or spiny lobster | | | | | | | | | 1,443 | 71 |
| Total | 264,861 | 32,934 | 2,135,049 | 135,673 | 24,975 | 1,219 | 1,046,550 | 45,842 | 11,636,930 | 671,596 |

IELD OF SHORE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY LINES.

| Species. | Brevard. | | Broward. | | Dade. | | Duval. | |
|---|---|---|---|---|---|---|---|---|
| | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| nberfish | | | 150 | $12 | 200 | $8 | | |
| ngelfish | | | | | 175 | 7 | | |
| rracuda | | | 150 | 12 | 200 | 8 | | |
| uefish | | | | | | | 30,000 | $900 |
| ue runner or hardtail | | | | | 300 | 30 | 1,500 | 150 |
| nito | | | | | 400 | 12 | | |
| ro or kingfish | | | 100 | 10 | 50 | 3 | | |
| wfish and "shellfish" | | | 300 | 45 | 973,331 | 68,133 | | |
| evalle | | | | | 50 | 2 | | |
| ouper | | | | | 200 | 8 | | |
| unts | | | 200 | 20 | 41,978 | 2,518 | | |
| gfish | | | 200 | 20 | 10,650 | 426 | | |
| ng whiting | | | | | 150 | 6 | | |
| ather jacket or "turbot" | | | | | | | 24,000 | 1,440 |
| onfish | | | | | 200 | 8 | | |
| gfish | | | | | 40 | 1 | | |
| nfish or sailor's choice | | | | | 100 | 4 | | |
| mpano | | | | | 200 | 10 | | |
| rgies | | | | | 360 | 54 | | |
| rkfish | | | | | 5,000 | 300 | | |
| d drum | | | | | 350 | 17 | | |
| bass | | | 100 | 12 | | | 24,000 | 1,440 |
| geantfish or snook | | | | | 100 | 8 | 20,000 | 1,600 |
| epshead | | | 200 | 16 | | | | |
| pper: | | | 50 | 5 | 100 | 6 | 14,000 | 840 |
| Mangrove | | | 300 | 30 | 2,700 | 135 | | |
| Mutton | | | 100 | 10 | 7,500 | 300 | | |
| Red | | | | | | | 19,200 | 1,920 |
| nish mackerel | | | | | 780 | 62 | | |
| etcague or "sea trout" | 73,082 | $8,039 | | | 1,000 | 80 | 80,000 | 6,400 |
| lowtail or "silver perch" | | | | | 450 | 18 | | |
| bs, hard | | | | | | | 32,000 | 800 |
| Total | 73,082 | 8,039 | 1,850 | 192 | 1,046,564 | 72,164 | 244,700 | 15,490 |

| Species. | Palm Beach. | | St. John. | | Volusia. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| berfish | 11,336 | $370 | | | | | 11,686 | $390 |
| zelfish | | | | | | | 175 | 7 |
| racuda | 180 | 6 | | | | | 530 | 26 |
| ck drum | | | 1,300 | $52 | | | 31,300 | 952 |
| efish | 48,797 | 4,860 | 650 | 65 | | | 51,247 | 5,105 |
| e runner or hardtail | 250 | 7 | | | | | 650 | 19 |
| nito | 1,460 | 44 | 150 | 9 | | | 1,760 | 66 |
| o or kingfish | 1,280,161 | 78,350 | | | | | 2,253,792 | 146,528 |
| wfish and "shellfish" | | | | | | | 50 | 2 |
| valle | 6,105 | 197 | | | | | 6,305 | 205 |
| unders | 100 | 5 | 170 | 10 | | | 270 | 15 |
| uper | 32,605 | 1,084 | | | | | 74,783 | 3,622 |
| nts | 5,840 | 175 | 150 | 9 | | | 16,840 | 630 |
| gfish | | | | | | | 150 | 6 |
| fish | 5,667 | 179 | 220 | 9 | | | 5,887 | 188 |
| ng whiting | | | | | | | 24,000 | 1,440 |
| ther jacket or "turbot" | 170 | 5 | | | | | 370 | 13 |
| nfish | | | | | | | 40 | 1 |
| fish | | | | | | | 100 | 4 |
| fish or sailor's choice | | | | | | | 200 | 10 |
| mpano | 80 | 16 | | | | | 440 | 70 |
| gies | 850 | 25 | | | | | 5,850 | 325 |
| kfish | | | | | | | 350 | 17 |
| d drum | 800 | 32 | 1,200 | 48 | | | 26,100 | 1,532 |
| bass | 19,121 | 988 | 1,410 | 70 | | | 40,631 | 2,664 |
| geantfish or snook | 14,357 | 512 | | | | | 14,557 | 528 |
| rks | 500 | 15 | | | | | 500 | 15 |
| epshead | 3,081 | 148 | | | | | 17,231 | 999 |
| pper: | | | | | | | | |
| Mangrove | 3,790 | 188 | | | | | 6,790 | 353 |
| Mutton | 12,285 | 537 | | | | | 19,885 | 847 |
| Red | 1,000 | 80 | | | | | 20,200 | 2,000 |
| nish mackerel | 5,190 | 514 | 1,510 | 151 | | | 7,480 | 727 |
| etcague or "sea trout" | 38,876 | 3,888 | 9,360 | 749 | 40,000 | $3,600 | 242,318 | 22,756 |
| owtail or "silver perch" | | | | | | | 450 | 18 |
| bs, hard | | | | | | | 32,000 | 800 |
| Total | 1,492,601 | 92,223 | 16,120 | 1,172 | 40,000 | 3,600 | 2,914,917 | 192,880 |

YIELD OF SHORE FISHERIES OF THE EAST COAST OF FLORIDA IN 1918, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY OTTER TRAWLS, CAST NETS, DIP NETS, TRAPS, AND SPEARS.

| Apparatus and species. | Dade. | | Duval. | | Nassau. | | St. John. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls: | | | | | | | | | | |
| Shrimp | | | | | 8,806,568 | $264,197 | 61,350 | $2,454 | 8,867,918 | $266,651 |
| King whiting | | | | | 100,000 | 2,000 | | | 100,000 | 2,000 |
| Total | | | | | 8,906,568 | 266,197 | 61,350 | 2,454 | 8,967,918 | 268,651 |
| Cast nets: | | | | | | | | | | |
| Croaker | | | | | | | 700 | 28 | 700 | 28 |
| Black drum | | | | | | | 510 | 20 | 510 | 20 |
| Mullet | | | 12,000 | $840 | | | 8,250 | 330 | 20,250 | 1,170 |
| Pinfish, or sailor's choice | | | | | | | 390 | 16 | 390 | 16 |
| Sheepshead | | | | | | | 80 | 5 | 80 | 5 |
| Spot | | | | | | | 650 | 26 | 650 | 26 |
| Squeteague or "sea trout" | | | | | | | 350 | 28 | 350 | 28 |
| Total | | | 12,000 | 840 | | | 10,930 | 453 | 22,930 | 1,293 |
| Dip nets: Sea crawfish or spiny lobster | 21,408 | $1,070 | | | | | | | 21,408 | 1,070 |
| Traps: Crabs, hard | | | 20,000 | 1,000 | | | | | 20,000 | 1,000 |
| Spears: Flounders | | | | | | | 7,500 | 450 | 7,500 | 450 |

BY RAKES, TONGS, AND HAND.

| Apparatus and species. | Dade. | | Duval. | | Nassau. | | Palm Beach. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Tongs: Oysters, market, public | | | 31,500 | $1,800 | | | 2,100 | $195 |
| By hand: | | | | | | | | |
| Oysters, market, public | | | | | 90,293 | $3,315 | | |
| Oysters, market, private | | | | | 135,065 | 3,994 | 10,500 | 1,000 |
| Conch meat | | | | | | | 7,000 | 700 |
| Turtles [1] | 6,000 | $360 | | | | | | |
| Total | 6,000 | 360 | | | 225,358 | 7,309 | 17,500 | 1,700 |

| Apparatus and species. | St. Lucie. | | St. John. | | Volusia. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Rakes: Clams, hard | | | 2,400 | $600 | | | 2,400 | $600 |
| Tongs: Oysters, market, public | 4,900 | $455 | 31,500 | 2,250 | 153,132 | $7,119 | 223,132 | 11,819 |
| By hand: | | | | | | | | |
| Oysters, market, public | | | | | | | 90,293 | 3,315 |
| Oysters, market, private | | | | | | | 145,565 | 4,994 |
| Conch meat | | | | | | | 7,000 | 700 |
| Turtles [1] | | | | | | | 6,000 | 360 |
| Total | | | | | | | 248,858 | 9,369 |

[1] Part of these were taken by gaffs.

INDUSTRIES.

*Menhaden industry.*—In 1918 there were 4 factories, valued at $413,098, operated on the east coast of Florida, using $40,000 in cash capital and employing 177 persons, to whom $103,256 were paid in wages. The manufactured products, including the products of a factory in Georgia, follow: Oil, 125,478 gallons, valued at $48,189; dried scrap, 444 tons, valued at $37,296; acidulated scrap, 6,886

ns, valued at $296,174; and crude or green scrap, 5,000 tons, valued $185,000.

*Wholesale trade.*—There were 50 firms engaged in the wholesale ade in fishery products, valued at $534,644. These used $101,600 cash capital and gave employment to 416 persons, to whom 89,421 were paid in wages.

*Canning industry.*—In 1918 there were 3 canneries, valued at 2,023, using cash capital to the amount of $15,000 and employing 5 persons, to whom $34,306 were paid in wages. The products pre- red consisted of canned oysters to the value of $17,210, and canned rimp to the value of $118,660.

The following tables contain detailed statistics of these industries 1918:

INDUSTRIES ON THE EAST COAST OF FLORIDA, 1918.

MENHADEN INDUSTRY.

| Item. | Number. | Value. | Item. | Number. | Value. |
|---|---|---|---|---|---|
| blishments | 4 | $413,098 | PRODUCTS. | | |
| capital | | 40,000 | | | |
| ons engaged | 177 | | Oil ... gallons | [1] 125,478 | $48,189 |
| es paid | | 103,256 | Dry scrap ... tons | 444 | 37,296 |
| | | | Acidulated scrap ... do | 6,886 | 296,174 |
| | | | Crude or green scrap ... do | [1] 5,000 | 185,000 |

OYSTER AND SHRIMP CANNING INDUSTRY.

| | | | | | |
|---|---|---|---|---|---|
| blishments | 3 | $92,023 | PRODUCTS—continued. | | |
| capital | | 15,000 | | | |
| ons engaged | 275 | | Shrimp, canned: | | |
| es paid | | 34,306 | No. 1 cans ... cases | [2] 15,317 | $75,920 |
| PRODUCTS. | | | No. 1½ cans ... do | [3] 8,503 | 42,740 |
| | | | Total | | 118,660 |
| ers, canned: | | | | | |
| -ounce cans ... cases | [2] 500 | 2,700 | | | |
| -ounce cans ... do | [2] 1,434 | 8,030 | | | |
| -ounce cans ... do | [3] 1,200 | 6,480 | | | |
| Total | | 17,210 | | | |

Includes one factory in Georgia. [2] Four dozen cans per case. [3] Two dozen cans per case.

## SUMMARY OF THE FISHERIES OF FLORIDA IN 1918.

n the following table the fisheries of both coasts of Florida are nbined for purposes of comparison and study of the State as a ole with other States of the region. In 1918 the fisheries of the te gave employment to 8,491 persons, the total investment ounted to $4,614,924, and the products amounted to 135,965,127 nds, valued at $5,166,538. Of the South Atlantic and Gulf tes, Florida ranks first in the number of persons engaged, invest- nt, and quantity and value of products, and North Carolina sec- . Louisiana ranks third, excepting in quantity of products, rgia and Texas having larger quantities accredited to them.

## Fisheries of Florida in 1918.

| Item. | East coast. | | West coast. | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 380 | | 623 | | 1,003 | |
| On vessels transporting | 15 | | 70 | | 85 | |
| In shore fisheries | 2,104 | | 3,600 | | 5,704 | |
| Shoresmen | 831 | | 868 | | 1,699 | |
| Total | 3,330 | | 5,161 | | 8,491 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Gasoline | 23 | $377,600 | 33 | $92,630 | 56 | $470,230 |
| Tonnage | 725 | | 360 | | 1,085 | |
| Outfit | | 71,287 | | 27,043 | | 98,330 |
| Sail | | | 62 | 309,800 | 62 | 309,800 |
| Tonnage | | | 2,069 | | 2,069 | |
| Outfit | | | | 71,520 | | 71,520 |
| Vessels transporting: | | | | | | |
| Gasoline | 7 | 32,300 | 34 | 105,800 | 41 | 138,100 |
| Tonnage | 89 | | 455 | | 544 | |
| Outfit | | 3,850 | | 22,444 | | 26,294 |
| Sail | | | 50 | 80,650 | 50 | 80,650 |
| Tonnage | | | 1,025 | | 1,025 | |
| Boats: | | | | | | |
| Sail, row, etc. | 607 | 20,180 | 2,019 | 128,900 | 2,626 | 149,080 |
| Power | 839 | 459,650 | 1,018 | 438,962 | 1,857 | 898,612 |
| Apparatus, vessel fisheries: | | | | | | |
| Seines | 25 | 52,900 | 1 | 1,600 | 26 | 54,500 |
| Gill nets | | | 6 | 120 | 6 | 120 |
| Lines | | | | 5,379 | | 5,379 |
| Otter trawls | | | 16 | 720 | 16 | 720 |
| Tongs | | | 12 | 120 | 12 | 120 |
| Sponge apparatus | | | | 210 | | 210 |
| Other apparatus | | | | 2 | | 2 |
| Apparatus, shore fisheries: | | | | | | |
| Seines | 117 | 61,030 | 163 | 61,175 | 280 | 122,205 |
| Trammel nets | | | 146 | 11,990 | 146 | 11,990 |
| Gill nets | 715 | 101,725 | 1,795 | 106,070 | 2,510 | 207,795 |
| Stop nets | | | 136 | 6,810 | 136 | 6,810 |
| Cast nets | 16 | 80 | | | 16 | 80 |
| Lines | | 2,965 | | 2,046 | | 5,011 |
| Otter trawls | 255 | 16,500 | 107 | 4,770 | 362 | 21,270 |
| Tongs, grabs, and rakes | 37 | 224 | 284 | 2,616 | 321 | 2,840 |
| Spears or gigs | 12 | 12 | | | 12 | 12 |
| Crab traps and drags | 20 | 50 | | | 20 | 50 |
| Sponge apparatus | | | | 70,935 | | 70,935 |
| Other apparatus | | 6 | | 12,596 | | 12,602 |
| Shore and accessory property | | 858,720 | | 619,987 | | 1,478,707 |
| Cash capital | | 151,600 | | 219,350 | | 370,950 |
| Total | | 2,210,679 | | 2,404,245 | | 4,614,924 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | 692,265 | $10,373 | | | 692,265 | $10,373 |
| Amberfish | 11,686 | 390 | 11,100 | $413 | 22,786 | 803 |
| Angelfish | 2,915 | 91 | 20,825 | 798 | 23,740 | 889 |
| Barracuda | 2,915 | 97 | 4,860 | 232 | 7,775 | 329 |
| Bluefish: | | | | | | |
| Fresh | 561,301 | 54,715 | 246,168 | 17,411 | 807,469 | 72,126 |
| Salted | | | 12,240 | 915 | 12,240 | 915 |
| Blue runner or hardtail: | | | | | | |
| Fresh | 50,750 | 1,542 | 324,648 | 6,935 | 375,398 | 8,477 |
| Salted | | | 65,430 | 2,734 | 65,430 | 2,734 |
| Bonito | 8,141 | 258 | 50,955 | 2,045 | 59,096 | 2,303 |
| Butterfish | 4,200 | 170 | | | 4,200 | 170 |
| Catfish | 13,900 | 278 | 51,427 | 3,126 | 65,327 | 3,404 |
| Cero and king fish | 2,271,792 | 147,608 | 465,860 | 31,903 | 2,737,652 | 179,511 |
| Cowfish and "shellfish" | 50 | 2 | 300 | 12 | 350 | 14 |
| Crevalle | 321,030 | 9,833 | 105,927 | 3,800 | 426,957 | 13,633 |
| Croaker | 124,278 | 3,447 | | | 124,278 | 3,447 |
| Drum, red and black | 900,091 | 24,638 | 994,910 | 39,803 | 1,895,001 | 64,441 |
| Elops or ten-pounder: | | | | | | |
| Fresh | | | 267,940 | 5,402 | 267,940 | 5,402 |
| Salted | | | 9,883 | 334 | 9,883 | 334 |
| Flounders | 13,490 | 737 | 37,381 | 2,089 | 50,871 | 2,826 |
| Groupers | 74,783 | 3,622 | 5,626,329 | 222,215 | 5,701,112 | 225,837 |
| Grunts | 113,679 | 3,629 | 87,349 | 3,618 | 201,028 | 7,247 |
| Hogfish | 250 | 11 | 7,344 | 336 | 7,594 | 347 |
| Jewfish | 12,487 | 365 | 69,844 | 2,704 | 82,331 | 3,069 |
| King whiting | 297,008 | 15,604 | 35,188 | 2,126 | 332,196 | 17,730 |

FISHERIES OF FLORIDA IN 1919—Continued.

| Item. | East coast. | | West coast. | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| lyfish | 1,280 | $13 | | | 1,280 | $13 |
| ther jacket or "turbot" | 370 | 13 | 7,756 | $357 | 8,126 | 370 |
| nhaden: | | | | | | |
| Fresh | 48,362,600 | 210,175 | 263,530 | 6,779 | 48,626,130 | 216,954 |
| Salted | | | 21,022 | 669 | 21,022 | 669 |
| ntish | 7,970 | 245 | 650 | 23 | 8,620 | 253 |
| lie: | | | | | | |
| Fresh | 10,337,889 | 397,147 | 22,569,736 | 973,129 | 32,987,625 | 1,370,276 |
| Salted | | | 2,453,930 | 177,974 | 2,453,930 | 177,974 |
| lbut roe, salted | | | 86,285 | 17,593 | 86,285 | 17,593 |
| rotfish | 3,500 | 70 | | | 3,500 | 70 |
| mit | 7,290 | 244 | 7,865 | 294 | 15,155 | 538 |
| fish | 14,762 | 451 | 6,596 | 250 | 21,358 | 701 |
| fish or sailor's choice | 442,535 | 13,033 | 21,132 | 809 | 463,667 | 13,842 |
| mara: | | | | | | |
| Fresh | 133,419 | 19,889 | 235,992 | 27,262 | 369,411 | 47,151 |
| Salted | | | 3,075 | 520 | 3,075 | 520 |
| ips | 5,950 | 328 | 56,742 | 2,442 | 62,692 | 2,770 |
| kish | 1,710 | 57 | 2,400 | 144 | 4,110 | 201 |
| fish or red drum, salted | | | 7,321 | 366 | 7,321 | 366 |
| nur | | | 300 | 10 | 300 | 10 |
| bass | 41,331 | 2,699 | 31,644 | 2,180 | 72,975 | 4,879 |
| gar or needlefish | 100 | 5 | | | 100 | 5 |
| geantfish or snook | 314,774 | 8,629 | 73,745 | 2,568 | 388,519 | 11,197 |
| d | 963,606 | 135,844 | | | 963,606 | 135,844 |
| rks | 63,775 | 526 | | | 63,775 | 526 |
| epshead | 104,303 | 4,115 | 988,662 | 32,627 | 1,092,965 | 36,742 |
| ter: | | | | | | |
| Mangrove | 23,186 | 975 | 103,999 | 4,359 | 127,185 | 5,334 |
| Mullet | 241,078 | 7,399 | 14,100 | 564 | 255,178 | 7,963 |
| Red | 20,200 | 2,000 | 7,230,168 | 455,640 | 7,250,368 | 457,640 |
| nish mackerel: | | | | | | |
| Fresh | 3,061,965 | 218,085 | 3,408,701 | 244,026 | 6,470,666 | 462,111 |
| Salted | | | 27,200 | 1,505 | 27,200 | 1,505 |
| | 393,030 | 11,998 | 37,977 | 1,519 | 431,007 | 13,517 |
| eteague or "sea trout": | | | | | | |
| Fresh | 1,645,223 | 142,091 | 1,630,686 | 145,534 | 3,275,909 | 287,625 |
| Salted | | | 31,625 | 3,772 | 31,625 | 3,772 |
| acon | | | 4,915 | 620 | 4,915 | 620 |
| acon caviar and roe | | | 12 | 12 | 12 | 12 |
| | | | 600 | 30 | 600 | 30 |
| pon | | | 1,800 | 180 | 1,800 | 180 |
| lowtail | | | 31,735 | 1,537 | 31,735 | 1,537 |
| owtail or "silver perch" | 43,970 | 1,279 | | | 43,970 | 1,279 |
| mp | 8,867,918 | 266,651 | 3,250,468 | 81,408 | 12,118,386 | 348,059 |
| crawfish | 23,503 | 1,174 | 322,015 | 16,064 | 345,518 | 17,238 |
| ps: | | | | | | |
| Hard | 52,000 | 1,800 | | | [1] 52,000 | 1,800 |
| Stone | | | 24,500 | 2,600 | 24,500 | 2,600 |
| apin | | | 2,475 | 206 | 2,475 | 206 |
| tles | 6,850 | 402 | 65,370 | 4,429 | 72,220 | 4,831 |
| rs, hard | 2,400 | 600 | 160,872 | 14,336 | [2] 163,272 | 14,936 |
| h meat | 7,000 | 700 | 2,000 | 100 | 9,000 | 800 |
| ters, market: | | | | | | |
| Public | 313,425 | 15,134 | 2,602,446 | 121,049 | [3] 2,915,871 | 136,183 |
| Private | 145,565 | 4,994 | 13,496 | 771 | [4] 159,061 | 5,765 |
| nges: | | | | | | |
| Glove | | | 2,022 | 245 | 2,022 | 245 |
| Grass | | | 73,033 | 12,125 | 73,033 | 12,125 |
| Sheepswool | | | 276,168 | 675,781 | 276,168 | 675,781 |
| Wire | | | 9,324 | 2,817 | 9,324 | 2,817 |
| Yellow | | | 91,641 | 34,187 | 91,641 | 34,187 |
| Total | 81,211,488 | 1,746,175 | 54,753,639 | 3,420,363 | 135,965,127 | 5,166,538 |

[1] 156,000 in number. [2] 20,409 bushels. [3] 416,553 bushels. [4] 22,723 bushels.

## SPONGE FISHERY OF FLORIDA.

The sponge fishery of Florida is prosecuted on the west coast of e State, and the catch is sold by bunches chiefly through the sponge change at Tarpon Springs. The large wool and grass sponges are imated at 2½ pounds per bunch, small wool sponges at 1 pound, d yellow and wire sponges at 1½ pounds. In 1919 the quantity d at the exchange amounted to 424,075 pounds, valued at $707,964,

and in 1920 to 409,746 pounds, valued at $678,209. A considerable quantity is also sold at Key West.

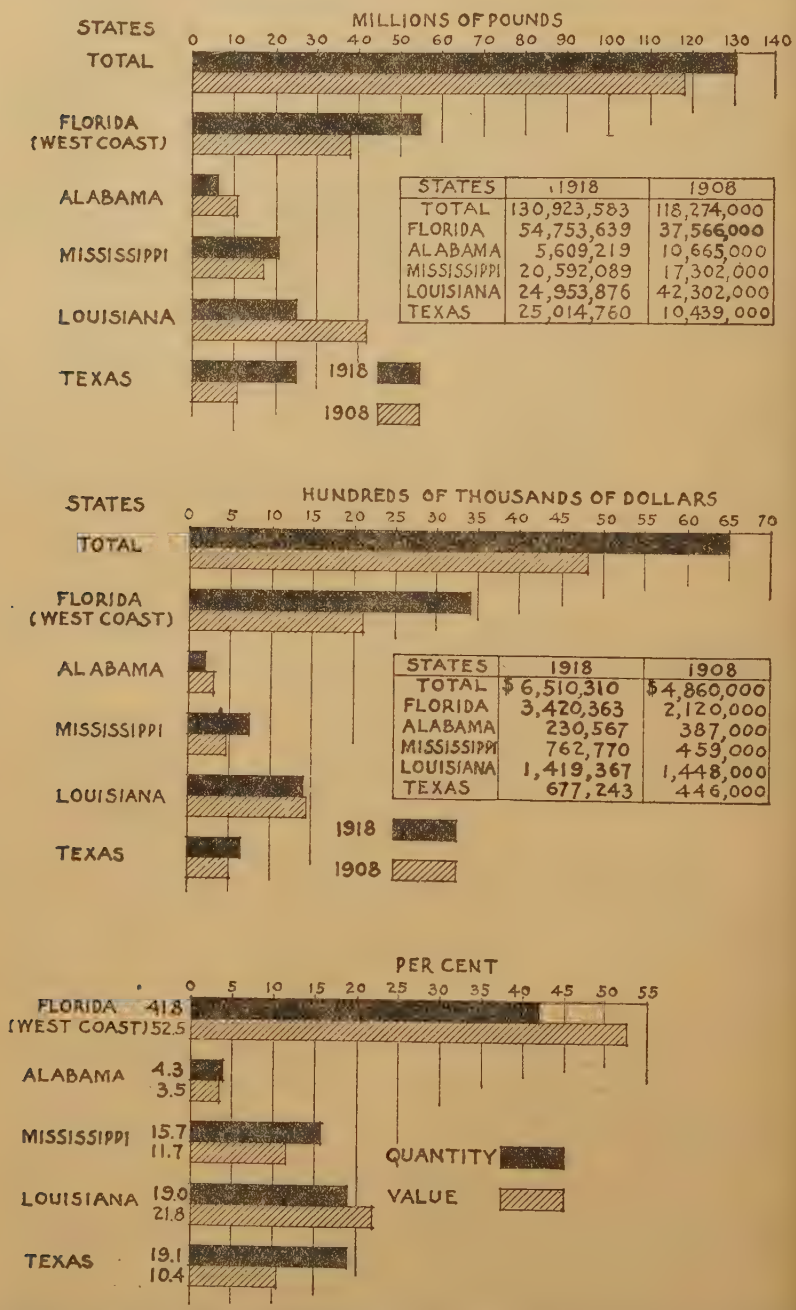



FIG. 8.—Top: Quantities of fish taken in the commercial fisheries of the Gulf States in 1918 compared with 1908. Center: Values of fish taken in the commercial fisheries of the Gulf States in 1918 compared with 1908. Bottom: Percentages of total quantity and value of fishery products for each of the Gulf States in 1918.

Following are statistics of the quantity in pounds based on the bove conversion figures of the different kinds of sponges sold at the xchange at Tarpon Springs in 1919 and 1920:

SPONGES SOLD AT THE EXCHANGE, TARPON SPRINGS, FLA., 1919 AND 1920.

| Kind. | 1919 | | 1920 | |
|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| rge wool | 205,462 | $544,222 | 176,722 | $522,399 |
| nall wool | 76,309 | 95,386 | 60,902 | 79,172 |
| llow | 73,051 | 39,161 | 72,648 | 43,499 |
| ass | 62,547 | 25,171 | 92,880 | 29,722 |
| ire | 6,706 | 4,024 | 6,594 | 3,417 |
| Total | 424,075 | 707,964 | 409,746 | 678,209 |

## JMMARIES OF THE FISHERIES OF THE GULF STATES FOR VARIOUS YEARS.

In the appended table are given comparative statistics showing e number of persons engaged, investment, and quantities and lues of the products of the fisheries of the Gulf States for various ars from 1880 to 1918. A similar summary of the fisheries of the uth Atlantic States for the same years appears on page 65 of this port. In view of the increasing attention which the fisheries of ese regions are receiving, these will serve to indicate the relative te of growth and development of these fisheries.

EXTENT OF FISHERIES OF THE GULF STATES, VARIOUS YEARS, 1880 TO 1918.[1]

| Item. | 1880 | 1887 | 1888 | 1889 |
|---|---|---|---|---|
| PERSONS ENGAGED. | | | | |
| rida (west coast) | 2,112 | (2) | 3,066 | 3,739 |
| bama | 635 | (2) | 318 | 594 |
| sissippi | 186 | 1,153 | 1,380 | 1,809 |
| isiana | 1,597 | 3,607 | 3,758 | 3,966 |
| xas | 601 | 1,027 | 1,021 | 1,211 |
| Total | 5,131 | (2) | 9,543 | 11,319 |
| INVESTMENT. | | | | |
| rida (west coast) | $362,563 | (2) | $613,736 | $1,281,190 |
| bama | 38,200 | (2) | 61,904 | 126,925 |
| sissippi | 8,800 | $284,760 | 329,632 | 455,300 |
| isiana | 93,621 | 633,007 | 664,927 | 706,557 |
| xas | 42,400 | 206,591 | 214,511 | 256,431 |
| Total | 545,584 | (2) | 1,884,710 | 2,826,403 |
| PRODUCTS.[3] | | | | |
| nds: | | | | |
| Florida (west coast) | 8,376,335 | (2) | (2) | 23,597,240 |
| Alabama | 3,541,500 | (2) | 1,633,589 | 4,560,269 |
| Mississippi | 788,500 | 6,548,175 | 7,833,010 | 8,933,339 |
| Louisiana | 6,996,000 | 18,455,489 | 19,121,056 | 20,947,239 |
| Texas | 3,858,875 | 6,282,489 | 6,609,161 | 7,357,800 |
| Total | 23,561,210 | (2) | (2) | 65,395,887 |
| ue: | | | | |
| Florida (west coast) | $564,819 | (2) | $628,396 | $948,845 |
| Alabama | 119,275 | (2) | 75,560 | 146,841 |
| Mississippi | 22,540 | $189,716 | 231,712 | 250,884 |
| Louisiana | 392,610 | 579,504 | 612,820 | 621,048 |
| Texas | 128,300 | 256,250 | 271,257 | 297,258 |
| Total | 1,227,544 | (2) | 1,819,745 | 2,264,876 |

Statistics for 1908 are from data published by the Bureau of the Census.
Statistics not available.
The quantity and value of products given for Florida for 1888 in the report of the Division of Statistics Methods of the Fisheries for 1919, page 137, include both coasts of the State, and those for Alabama 1908 include the Tennessee River district.

EXTENT OF FISHERIES OF THE GULF STATES, VARIOUS YEARS, 1880 TO 1918—Contd.

| Item. | 1890 | 1897 | 1902 | 1908 | 1918 |
|---|---|---|---|---|---|
| PERSONS ENGAGED. | | | | | |
| Florida (west coast) | 4,068 | 5,011 | 6,416 | 6,016 | 5,161 |
| Alabama | 618 | 789 | 1,098 | 895 | 783 |
| Mississippi | 1,721 | 2,565 | 4,344 | 1,561 | 2,867 |
| Louisiana | 4,068 | 4,403 | 5,027 | 5,152 | 4,191 |
| Texas | 1,277 | 1,199 | 1,144 | 1,780 | 1,886 |
| Total | 11,752 | 13,967 | 18,029 | [1] 15,404 | 14,888 |
| INVESTMENT. | | | | | |
| Florida (west coast) | $1,369,294 | $1,149,262 | $1,945,320 | $1,884,000 | $2,404,245 |
| Alabama | 135,290 | 165,189 | 328,285 | 262,000 | 331,741 |
| Mississippi | 434,710 | 518,301 | 1,270,408 | 461,000 | 1,433,585 |
| Louisiana | 719,876 | 513,813 | 789,722 | 841,000 | 1,475,188 |
| Texas | 319,122 | 237,496 | 373,724 | 454,000 | 890,100 |
| Total | 2,978,292 | 2,584,061 | 4,707,460 | [1] 3,902,000 | 6,537,859 |
| PRODUCTS.[2] | | | | | |
| Pounds: | | | | | |
| Florida (west coast) | 27,418,562 | 28,255,219 | 48,120,019 | 37,566,000 | 54,753,639 |
| Alabama | 4,776,968 | 4,699,381 | 9,351,447 | 9,918,450 | 5,609,219 |
| Mississippi | 8,131,401 | 7,829,685 | 23,426,965 | 17,302,000 | 20,592,089 |
| Louisiana | 20,789,203 | 17,401,788 | 24,754,135 | 42,302,000 | 21,953,876 |
| Texas | 7,959,400 | 7,174,550 | 8,044,404 | 10,439,000 | 25,014,760 |
| Total | 69,075,534 | 65,360,623 | 113,696,970 | 117,527,450 | 130,923,583 |
| Value: | | | | | |
| Florida (west coast) | $1,064,139 | $944,793 | $1,462,166 | $2,120,000 | $3,420,363 |
| Alabama | 154,871 | 134,438 | 266,682 | 358,000 | 230,567 |
| Mississippi | 245,699 | 192,298 | 553,220 | 459,000 | 762,770 |
| Louisiana | 660,134 | 713,587 | 858,314 | 1,448,000 | 1,419,367 |
| Texas | 313,832 | 286,610 | 353,814 | 446,000 | 677,243 |
| Total | 2,438,675 | 2,271,726 | 3,494,196 | 4,831,000 | 6,510,310 |

[1] Exclusive of persons and investment in canneries, packing houses, and other establishments.
[2] The quantity and value of products given for Florida for 1888 in the report of the Division of Statistics and Methods of the Fisheries for 1919, page 137, include both coasts of the State, and those for Alabama for 1908 include the Tennessee River district.

## FISHERIES OF THE NEW ENGLAND STATES IN 1919.

The statistics of the coast fisheries of the New England States presented in this report are for the calendar year 1919 and have been published in summarized form in Statistical Bulletin No. 497.[11]

Included in this report are statistics of the sardine industry of Maine for 1919 and 1920 and the salmon fishery of the Penobscot River and Bay for 1918, 1919, and 1920.

### EARLIER PUBLICATIONS.

Some of the previous publications containing statistical information on the fisheries of the New England States and published in Washington, D. C., follow:

1873. Report on the Conditions of the Sea Fisheries of the South Coast of New England in 1871 and 1872. By Spencer F. Baird. Report, U. S. Commission of Fish and Fisheries, 1871 and 1872 (1873), p. i–xli.

1887. The Coast of Maine and Its Fisheries. By R. Edward Earll. *In* The Fisheries and Fishery Industries of the United States, by G. Brown Goode et al., Sec. II, Pt. I, p. 5–102.

The Fisheries of New Hampshire. By W. A. Wilcox. Ibid., Sec. II, Pt. II, p. 103–112.

[11] The statistical data were collected by Winthrop A. Roberts, Rob Leon Greer, Andrew J. Messner Walter H. Rich, Lawrence T. Hopkinson, and Fred F. Johnson, statistical agents of the Bureau.

1887. The Fisheries of Massachusetts. By A. Howard Clark. Ibid., Sec. II, Pt. III, p. 113–280.
The Fisheries of Rhode Island. By A. Howard Clark. Ibid., Sec. II, Pt. IV, p. 281–310.
The Coast of Connecticut and Its Fisheries. By A. Howard Clark. Ibid., Sec. V, p. 311–340.
History and Methods of the Fisheries. Ibid., Sec. V, Vol. I (xi+808 p.), Vol. II (xx+881 p.), and atlas of 275 pls.
1889. The Sea Fisheries of Eastern North America. By Spencer F. Baird. Appendix A, Report, U. S. Commission of Fish and Fisheries, 1886 (1889), 224 p.
1891. Notes on the Oyster Fishery of Connecticut. By J. W. Collins. Bulletin, U. S. Fish Commission, Vol. IX, 1889 (1891), p. 461–497, Pl. CLIX–CLXVI.
1892. III. Fisheries of the New England States [1887 and 1888]. *In* Statistical Review of the Coast Fisheries of the United States, prepared under the direction of J. W. Collins. Report, U. S. Commission of Fish and Fisheries, 1888 (1892), p. 286–322.
Report on the Fisheries of the New England States. By J. W. Collins and Hugh M. Smith. Bulletin, U. S. Fish Commission, Vol. X, 1890 (1892), p. 73–176.
1898. The Herring Industry of the Passamaquoddy Region, Maine. By Ansley Hall. Report, U. S. Commission of Fish and Fisheries, 1896 (1898), p. 443–487.
1899. The Shad Fisheries of the Atlantic Coast of the United States. By Charles H. Stevenson. Report, U. S. Commission of Fish and Fisheries, 1898 (1899), p. 101–269.
1901. The Lobster Fishery of Maine. By John N. Cobb. Bulletin, U. S. Fish Commission, Vol. XIX, 1899 (1901), p. 241–265, illus., pl. 28–32.
Statistics of the Fisheries of the New England States. Report, U. S. Commission of Fish and Fisheries, 1900 (1901), p. 311–386.
1905. Statistics of the Fisheries of the New England States, 1902. Report, U. S. Bureau of Fisheries, 1904 (1905), p. 245–325.
1908. Statistics of the Fisheries of the New England States for 1905. Report and Special Papers, U. S. Bureau of Fisheries, 1906 (1908), 93 p.
1911. Fisheries of the United States, 1908. Special Reports, Bureau of the Census, 1911.

## COMMON AND SCIENTIFIC NAMES OF FISHES.

Following is a list of the common and scientific names of the fishes of New England States to which reference is made in the present report. If the trade will adopt the common names employed herein, it is believed that much of the confusion now encountered will be avoided and that in this way the consumer may be educated to the relative merits of individual species.

| | |
|---|---|
| Alewives | *Pomolobus æstivalis.* |
| | *Pomolobus pseudoharengus.* |
| Bluefish | *Pomatomus saltatrix.* |
| Bonito | *Sarda sarda.* |
| Bullhead | *Ameiurus nebulosus.* |
| Butterfish | *Poronotus triacanthus.* |
| Carp | *Cyprinus carpio.* |
| Cod | *Gadus callarias.* |
| Cunner | *Tautogolabrus adspersus.* |
| Cusk | *Brosmius brosme.* |
| Eels | *Anguilla rostrata.* |
| | *Leptocephalus conger.* |
| Flounders | Pleuronectidæ (species). |
| Grayfish | *Squalus acanthias.* |
| Haddock | *Melanogrammus æglifinus.* |
| Hake | Urophycis tenuis. |
| | Urophycis chuss. |
| Halibut | *Hippoglossus hippoglossus.* |
| Herring | *Clupea harengus.* |
| Hickory shad | *Pomolobus mediocris.* |
| King whiting | *Menticirrhus saxatilis.* |

| | |
|---|---|
| Launce | *Ammodytes americanus.* |
| Mackerel | *Scomber scombrus.* |
| Menhaden | *Brevoortia tyrannus.* |
| Monkfish | *Lophius piscatorius.* |
| Minnows | Various species small fishes. |
| Perch, white | *Morone americana.* |
| Perch, yellow | *Perca flavescens.* |
| Pickerel | *Esox reticulatus.* |
| Pollock | *Pollachius virens.* |
| Pompano | Trachinotus (species). |
| Rosefish | *Sebastes marinus.* |
| Round herring | *Etrumeus teres.* |
| Salmon, Atlantic | *Salmo salar.* |
| Salmon, humpback | *Oncorhynchus gorbuscha.* |
| Sculpins | Cottidæ (species). |
| Scup | *Stenotomus chrysops.* |
| Sea bass | *Centropristes striatus.* |
| Sea robin | *Prionotus carolinus.*<br>*Prionotus strigatus.* |
| Shad | *Alosa sapidissima.* |
| Sharks | All Selachii except Batoidei. |
| Skates and rays | Batoidei (species). |
| Smelt | *Osmerus mordax.* |
| Squeteague | *Cynoscion regalis.* |
| Striped bass | *Roccus lineatus.* |
| Sturgeon | *Acipenser sturio.* |
| Suckers | Catostomidæ (species). |
| Sunfish | Centrarchidæ (species). |
| Swordfish | Xiphias gladius. |
| Tautog | *Tautoga onitis.* |
| Tilefish | *Lopholatilus chamæleonticeps.* |
| Tomcod | *Microgadus tomcod.* |
| Tuna | *Thunnus thynnus.* |
| Whiting | *Merluccius bilinearis.* |
| Wolffish | *Anarhichas lupus.* |

## GENERAL STATISTICS.

The fisheries of the New England States in 1919 gave employmentto 30,767 persons, of whom 6,346 were on vessels fishing, 533 on vessels transporting fishery products, 10,968 in the shore or boat fisheries, and 12,920 shoresmen in the wholesale fishery trade, canneries, smokehouses, oysterhouses, and other shore industries connected with the fisheries. The number of persons engaged in the fisheries of the different States follows: Maine, 14,386; Massachusetts, 12,346; Connecticut, 2,289; Rhode Island, 1,646; and New Hampshire, 100. Compared with the returns for 1905, the year for which the last canvass was made by the Bureau, there has been a decrease in the number of persons employed in all of the States of 6,572 persons, or 17.60 per cent. The decrease by States follows: Massachusetts, 3,348 persons, or 21.33 per cent; Maine, 1,495 persons, or 9.41 per cent; Connecticut, 1,118 persons, or 32.81 per cent; Rhode Island, 566 persons, or 25.59 per cent; and New Hampshire, 45 persons, or 31.03 per cent.

The total amount of capital invested in the fisheries and fishery industries of these States in 1919 was $40,597,097. There has been an increase of $18,066,377, or 80.18 per cent, in money invested in the fisheries and fishery industries of the region since 1905. In Maine the investment amounted to $17,544,969, an increase of $8,572,920, or 95.55 per cent, as compared with 1905. In Massachusetts the investment was $19,111,269, an increase of $8,300,827,

or 76.79 per cent, compared with 1905. In Rhode Island the investment amounted to $2,249,536, an increase of $1,184,110, or 111.14 per cent. In Connecticut the investment was $1,645,793, an increase of $10,040, or 0.61 per cent, as compared with 1905; and in New Hampshire the investment in 1919 was $45,530, a decrease of $1,520, or 3.23 per cent, as compared with 1905. The investment included 757 fishing vessels, valued at $8,501,081, having a net tonnage of 24,099 tons and outfits valued at $2,400,500; 221 transporting vessels, valued at $741,005, having a net tonnage of 3,214 tons and outfits valued at $185,425; 10,364 boats, valued at $2,280,713; fishing apparatus used by vessels and boats, valued at $2,888,332; shore and accessory property to the value of $20,354,089; and cash or working capital to the amount of $3,245,952. The principal forms of fishing apparatus arranged in order of value are pound nets, trap nets, and weirs, 1,119 in number, valued at $1,087,997; lobster pots, 239,558, valued at $612,207; seines, 441, valued at $415,507; gill nets, 14,616, valued at $324,246; and lines valued at $287,579.

The use of the otter trawl introduced in the vessel and shore fisheries for the capture of ground fish probably represents the most important change in apparatus since 1905. In 1905 none were reported in operation, while in 1919 there were 492, valued at $37,987.

The combined catch of all the New England States amounted to 467,339,870 pounds, valued at $19,838,657. Of this amount the largest quantity, amounting to 246,951,241 pounds, valued at $10,859,746, is credited to Massachusetts. Maine ranks second, with a catch of 147,956,369 pounds, valued at $3,889,035; Rhode Island third, with a catch of 48,250,883 pounds, valued at $3,296,578; Connecticut fourth, with 23,652,647 pounds, valued at $1,700,638; and New Hampshire fifth, with 528,730 pounds, valued at $92,660.

The more important species taken in these States were: Cod, 84,917,535 pounds, valued at $3,597,891; oysters, 19,337,374 pounds, or 2,762,482 bushels, valued at $2,617,020; lobsters, 10,666,706 pounds, valued at $2,550,980: haddock, 89,405,609 pounds, valued at $2,544,617; and mackerel, 15,785,012 pounds, valued at $1,562,088.

Compared with the Bureau's returns for 1905 there has been a decrease in the products of the fisheries of 12,943,734 pounds, or 2.70 per cent, in the quantity, and an increase of $5,654,452, or 39.87 per cent, in the value. Compared with the returns of the Bureau of the Census for 1908 there has been a decrease in the products of 62,689,130 pounds, or 11.83 per cent, in the quantity and an increase of $4,699,657, or 31.04 per cent, in the value. Compared with 1905 there was an increase in the quantity of products in Maine amounting to 23,232,583 pounds, or 18.62 per cent; in Rhode Island, of 24,354,640 pounds, or 101.92 per cent; but decreases in Connecticut of 51,320,001 pounds, or 68.45 per cent; in Massachusetts, of 8,703,234 pounds, or 3.40 per cent, and in New Hampshire of 507,722 pounds, or 48.99 per cent. In 1919 there was an increase in the value of the products in all of the States except Connecticut, as compared with 1905, as follows: Massachusetts, $3,834,497, or 54.56 per cent; Rhode Island, $1,749,920, or 113.14 per cent; Maine, $1,502,629, or 62.96 per cent; and New Hampshire, $40,716, or 78.38 per cent. In Connecticut the decrease in value amounted to $1,473,310, or 46.42 per cent.

The following table gives the catch of certain species for various years from 1889 to 1919. These have been subdivided into groups

along the following general lines: (*a*) Species for which there have been relatively intensive fisheries and which on the basis of the returns reveal little indication of depletion of supply; (*b*) species showing signs of a depleted supply; and (*c*) species for which there has been an increasing demand and a sufficient supply to satisfy that demand.

PRODUCTS, IN POUNDS, OF CERTAIN FISHERIES OF THE NEW ENGLAND STATES, VARIOUS YEARS, 1889 TO 1919.

| Year. | Cod. | Hake. | Mackerel. | Swordfish. | Clams, hard. |
|---|---|---|---|---|---|
| 1889 | 97,145,645 | 14,816,306 | 8,361,408 | 1,230,339 | 544,200 |
| 1898 | 89,207,975 | 37,184,193 | 8,795,084 | 1,617,331 | 994,232 |
| 1902 | 88,254,949 | 33,182,559 | 20,358,982 | 1,689,740 | 1,223,200 |
| 1905 | 75,065,224 | 35,470,667 | 15,981,034 | 3,296,369 | 1,568,264 |
| 1908 | 95,284,000 | 34,121,300 | 11,492,000 | 2,703,000 | 1,381,000 |
| 1919 | 84,917,535 | 20,222,267 | 15,785,012 | 1,325,980 | 1,082,152 |

| Year. | Halibut. | Alewives. | Shad. | Lobster. | Clams, soft. |
|---|---|---|---|---|---|
| 1889 | 10,740,843 | 7,882,682 | 1,334,714 | 30,449,603 | 11,542,272 |
| 1898 | 10,328,187 | 6,985,948 | 1,415,649 | 14,661,808 | 11,296,901 |
| 1902 | 12,365,705 | 8,437,446 | 1,380,812 | 14,756,495 | 8,345,470 |
| 1905 | 3,017,776 | 8,743,284 | 1,260,904 | 11,524,499 | 6,375,850 |
| 1908 | 4,353,500 | 7,581,000 | 1,285,500 | 14,734,000 | 7,294,000 |
| 1919 | 1,960,030 | 3,782,289 | 939,995 | 10,666,707 | 4,992,374 |

| Year. | Haddock. | Pollock. | Herring. | Whiting. | Flounders. |
|---|---|---|---|---|---|
| 1889 | 43,473,627 | 8,442,397 | 36,316,259 | 126,089 | 2,950,978 |
| 1898 | 45,676,155 | 9,444,887 | 64,587,461 | 41,050 | 4,109,494 |
| 1902 | 47,077,315 | 17,744,127 | 191,739,467 | 2,513,470 | 4,808,746 |
| 1905 | 76,617,156 | 28,949,359 | 83,390,554 | 4,812,840 | 5,761,473 |
| 1908 | 59,544,000 | 29,244,300 | 121,700,000 | 713,000 | 9,753,000 |
| 1919 | 89,405,609 | 25,009,639 | 97,636,395 | 16,199,637 | 15,541,047 |

The following tables contain statistics of the number of persons employed, the amount of capital invested, the quantity and value of the products of the fisheries of the New England States in 1919, statistics of certain shellfish products in bushels and number, and comparative statistics of persons, investment, and products for various years from 1880 to 1919:

FISHERIES OF THE NEW ENGLAND STATES, 1919.

| Item. | Maine. | | New Hampshire. | | Massachusetts. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 1,004 | | | | 4,459 | |
| On vessels transporting | 339 | | 3 | | 66 | |
| In shore fisheries | 5,332 | | 85 | | 3,737 | |
| Shoresmen | 7,711 | | 12 | | 4,084 | |
| Total | 14,386 | | 100 | | 12,346 | |
| INVESTMENT. | | | | | | |
| Vessels, fishing: | | | | | | |
| Steam | 5 | $1,002,500 | | | 34 | $2,484,545 |
| Tonnage | 662 | | | | 3,310 | |
| Outfit | | 70,050 | | | | 423,961 |
| Gasoline | 173 | 511,650 | | | 308 | 2,776,508 |
| Tonnage | 2,039 | | | | 8,202 | |
| Outfit | | 91,013 | | | | 1,059,438 |
| Sail | 4 | 52,000 | | | 51 | 808,315 |
| Tonnage | 392 | | | | 4,734 | |
| Outfit | | 25,800 | | | | 352,312 |

FISHERIES OF THE NEW ENGLAND STATES, 1919—Continued.

| Item. | Maine. | | New Hampshire. | | Massachusetts. | |
|---|---|---|---|---|---|---|
| INVESTMENT—continued. | | | | | | |
| Vessels transporting: | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Steam | 2 | $9,000 | | | | |
| Tonnage | 28 | | | | | |
| Outfit | | 2,800 | | | | |
| Gasoline | 165 | 510,040 | 1 | $6,300 | 22 | $108,950 |
| Tonnage | 1,762 | | 8 | | 460 | |
| Outfit | | 103,998 | | 3,000 | | 16,680 |
| Sail | 2 | 16,715 | | | 3 | 13,800 |
| Tonnage | 121 | | | | 132 | |
| Outfit | | 6,375 | | | | 2,375 |
| Boats: | | | | | | |
| Sail, row, etc. | 2,759 | 83,639 | 31 | 802 | 1,308 | 58,488 |
| Power | 3,090 | 902,080 | 53 | 10,675 | 1,732 | 891,195 |
| Apparatus, vessel fisheries: | | | | | | |
| Seines | 84 | 93,270 | | | 100 | 193,850 |
| Gill nets | 1,253 | 29,689 | | | 5,430 | 107,685 |
| Otter trawls | 13 | 2,520 | | | 119 | 17,850 |
| Lines, hand and trawl | | 34,747 | | | | 133,658 |
| Harpoons | | 2,230 | | | | 6,655 |
| Lobster pots | 1,085 | 2,195 | | | 430 | 1,050 |
| Dredges | 4 | 400 | | | 224 | 2,516 |
| Tongs and rakes | | | | | 3 | 49 |
| Whaling apparatus | | | | | | 29,000 |
| Apparatus, shore fisheries: | | | | | | |
| Seines | 103 | 44,055 | | | 67 | 46,045 |
| Gill nets | 2,786 | 71,214 | | | 3,688 | 77,323 |
| Pound nets, trap nets, and weirs | 690 | 514,665 | | | 254 | 387,470 |
| Fyke nets | 146 | 3,685 | | | 53 | 1,585 |
| Bag nets and pocket nets | 95 | 8,675 | | | | |
| Bow nets | | | | | 13 | 36 |
| Dip nets and scoop nets | 102 | 776 | | | 104 | 374 |
| Otter trawls | 39 | 1,635 | | | 191 | 9,510 |
| Lines, hand and trawl | | 61,410 | | 462 | | 51,412 |
| Harpoons | | 215 | | | | 540 |
| Spears | 42 | 57 | | | 72 | 171 |
| Cunner traps | 80 | 140 | | | 4 | 6 |
| Eel pots and traps | 599 | 1,198 | 18 | 36 | 1,826 | 4,455 |
| Lobster pots | 153,532 | 382,258 | 2,275 | 6,735 | 43,012 | 109,359 |
| Crabs traps | 180 | 330 | | | | |
| Dredges | 24 | 2,500 | | | 2,764 | 16,521 |
| Tongs and grabs | | | | | 235 | 1,355 |
| Rakes | | | 2 | 12 | 784 | 5,656 |
| Forks and hoes | 1,103 | 1,167 | 25 | 50 | 475 | 887 |
| Cockle traps | | | | | 680 | 500 |
| Shore and accessory property | | 11,864,571 | | 11,958 | | 7,000,239 |
| Cash capital | | 1,029,707 | | 5,500 | | 1,902,945 |
| Total | | 17,544,969 | | 45,530 | | 19,111,269 |
| PRODUCTS. | | | | | | |
| Alewives: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | 580,811 | $7,455 | | | 1,097,476 | $23,070 |
| Salted | 6,860 | 176 | | | 1,259,134 | 55,995 |
| Smoked | 352,293 | 19,606 | | | 39,000 | 2,845 |
| Bluefish | 39 | 7 | | | 4,721 | 791 |
| Bonito | 44 | 4 | | | 189,727 | 18,016 |
| Butterfish | 32,763 | 3,031 | | | 296,828 | 26,810 |
| Cod: | | | | | | |
| Fresh | 13,095,145 | 479,827 | 98,354 | $3,609 | 66,320,920 | 2,826,091 |
| Salted | 983,244 | 62,312 | | | 3,175,405 | 166,702 |
| Cunner | 30,695 | 615 | | | 9,959 | 585 |
| Cusk: | | | | | | |
| Fresh | 1,046,147 | 33,580 | 2,400 | 86 | 1,561,337 | 55,068 |
| Salted | | | | | 16,870 | 759 |
| Eels | 305,050 | 25,249 | 2,000 | 240 | 374,167 | 47,714 |
| Flounders | 469,594 | 22,227 | 8,000 | 240 | 10,262,693 | 478,850 |
| Grayfish | | | | | 63,667 | 184 |
| Goosefish or monkfish | | | | | 2,500 | 7 |
| Haddock: | | | | | | |
| Fresh | 11,124,411 | 332,215 | 18,764 | 829 | 77,804,810 | 2,191,215 |
| Salted | 73,400 | 2,812 | | | 373,574 | 16,996 |
| Hake: | | | | | | |
| Fresh | 16,108,575 | 329,227 | 3,000 | 98 | 4,066,437 | 156,353 |
| Salted | 5,060 | 256 | | | 29,095 | 1,307 |
| Halibut: | | | | | | |
| Fresh | 217,476 | 31,841 | | | 1,708,509 | 296,232 |
| Salted | 1,000 | 80 | | | 8,045 | 1,060 |
| Herring: | | | | | | |
| Fresh | 86,646,126 | 455,604 | | | 10,811,409 | 129,408 |
| Salted | 6,200 | 187 | | | | |
| Smoked | 161,550 | 6,715 | | | | |

FISHERIES OF THE NEW ENGLAND STATES, 1919—Continued.

| Item. | Maine. | | New Hampshire. | | Massachusetts. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Hickory shad | | | | | 12,800 | $830 |
| King whiting | | | | | 72 | 18 |
| Launce | | | | | 67,800 | 838 |
| Mackerel: | | | | | | |
| Fresh | 593,506 | $81,428 | | | 12,267,132 | 1,212,461 |
| Salted | 8,000 | 650 | | | 1,249,062 | 109,948 |
| Frigate | | | | | 61,361 | 1,862 |
| Menhaden | | | | | 161,219 | 2,231 |
| Minnows | | | | | 1,000 | 125 |
| Perch: | | | | | | |
| White | | | | | 6,200 | 920 |
| Yellow | | | | | 500 | 25 |
| Pollock: | | | | | | |
| Fresh | 5,597,163 | 113,487 | 25,600 | $615 | 19,192,388 | 468,169 |
| Salted | 34,800 | 2,440 | | | 50,153 | 1,774 |
| Pompano | | | | | 14 | 2 |
| Rosefish | 17,322 | 245 | | | 36,773 | 1,124 |
| Round herring | | | | | 941 | 19 |
| Salmon: | | | | | | |
| Atlantic | 20,610 | 7,926 | | | | |
| Humpback | 310 | 62 | | | | |
| Sculpin | | | | | 6,000 | 15 |
| Scup | | | | | 78,624 | 5,666 |
| Sea bass | | | | | 15,067 | 1,649 |
| Sea robin | | | | | 400 | 1 |
| Shad | 414,455 | 28,393 | | | 62,337 | 4,309 |
| Sharks | 39,747 | 884 | | | 328,399 | 3,664 |
| Skates and rays | 2,385 | 47 | | | 100,354 | 503 |
| Smelt | 523,967 | 94,496 | | | 39,150 | 10,690 |
| Squeteague | | | | | 5,777 | 908 |
| Striped bass | 592 | 113 | | | 971 | 231 |
| Sturgeon | 8,129 | 1,714 | | | 12,098 | 3,358 |
| Sturgeon caviar | | | | | 150 | 356 |
| Sturgeon roe | 143 | 297 | | | 181 | 163 |
| Suckers | 110,400 | 11,852 | | | | |
| Swordfish | 424,813 | 104,734 | | | 711,729 | 155,330 |
| Tautog | 14 | 2 | | | 91,876 | 8,885 |
| Tilefish | | | | | 188,180 | 9,803 |
| Tomcod | 147,160 | 4,511 | | | 7,890 | 239 |
| Tuna | 31,909 | 2,040 | | | 42,901 | 3,548 |
| Whiting: | | | | | | |
| Fresh | 684,970 | 4,727 | | | 13,918,650 | 148,854 |
| Salted | 3,000 | 90 | | | | |
| Wolffish | 83,958 | 2,061 | | | 291,188 | 9,219 |
| Other fish | | | | | 38,232 | 2,117 |
| Lobster | 5,545,884 | 1,411,548 | 298,012 | 73,203 | 2,387,636 | 516,393 |
| Shrimp | | | | | 3,400 | 1,589 |
| Crabs: | | | | | | |
| Hard | 70,575 | 3,595 | | | 1,764,961 | 49,424 |
| Soft | | | | | 266 | 40 |
| Squid | 377 | 4 | | | 6,134,557 | 108,864 |
| Clams: | | | | | | |
| Hard— | | | | | | |
| Public | | | | | 853,304 | 271,342 |
| Private | | | | | 22,640 | 12,425 |
| Soft— | | | | | | |
| Public | 2,105,734 | 163,209 | 66,600 | 13,320 | 2,062,630 | 232,194 |
| Private | | | | | 125,000 | 10,750 |
| Razor | | | | | 23,300 | 3,500 |
| Oysters: | | | | | | |
| Market— | | | | | | |
| Public | | | | | 5,579 | 1,383 |
| Private | | | | | 769,055 | 278,164 |
| Seed— | | | | | | |
| Public | | | | | 23,100 | 1,320 |
| Private | | | | | 80,178 | 6,552 |
| Scallops | 72,512 | 31,416 | | | 1,332,486 | 439,382 |
| Mussels | 16,970 | 367 | | | | |
| Cockles and winkles | | | | | 577,400 | 3,425 |
| Blackfish | | | | | 40,000 | 40 |
| Porpoise | | | | | 750 | 15 |
| Livers | 112,587 | 1,712 | | | 313,575 | 4,844 |
| Spawn | 18,857 | 778 | | | 146,929 | 8,836 |
| Tongues and cheeks | 5,200 | 190 | | | 600 | 12 |
| Sounds | 5,212 | 96 | | | | |
| Oil: | | | | | | |
| Sperm | | | | | 1,545,413 | 218,111 |
| Liver | 8,625 | 895 | | | | |
| Ambergris | | | | | 30 | 5,000 |
| Alewife scales | | | | | 10,400 | 5,200 |
| Irish moss | | | 6,000 | 420 | 204,200 | 15,027 |
| Total | 147,956,369 | 3,889,035 | 528,730 | 92,660 | 246,951,241 | 10,859,746 |

FISHERIES OF THE NEW ENGLAND STATES, 1919—Continued.

| Item. | Rhode Island. | | Connecticut. | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 317 | | 566 | | 6,346 | |
| On vessels transporting | 44 | | 81 | | 533 | |
| On shore fisheries | 795 | | 1,019 | | 10,968 | |
| Boatsmen | 490 | | 623 | | 12,920 | |
| Total | 1,646 | | 2,289 | | 30,767 | |
| INVESTMENT. | | | | | | |
| Vessels, fishing: | | | | | | |
| Steam | 9 | $141,000 | 24 | $328,243 | 72 | $3,956,288 |
| Tonnage | 564 | | 2,240 | | 6,776 | |
| Outfit | | 51,910 | | 135,346 | | 687,267 |
| Gasoline | 55 | 199,400 | 67 | 180,425 | 603 | 3,670,983 |
| Tonnage | 849 | | 924 | | 12,014 | |
| Outfit | | 82,025 | | 94,690 | | 1,327,166 |
| Sail | | | 24 | 12,495 | 82 | 873,810 |
| Tonnage | | | 183 | | 5,309 | |
| Outfit | | | | 7,955 | | 386,067 |
| Vessels transporting: | | | | | | |
| Steam | 5 | 22,000 | 2 | 13,200 | 9 | 44,200 |
| Tonnage | 77 | | 111 | | 216 | |
| Outfit | | 23,800 | | 9,627 | | 36,227 |
| Gasoline | 13 | 29,200 | 4 | 7,800 | 205 | 662,290 |
| Tonnage | 104 | | 95 | | 2,429 | |
| Outfit | | 10,500 | | 4,370 | | 138,548 |
| Sail | | | | | 5 | 30,515 |
| Tonnage | | | | | 253 | |
| Outfit | | | | | | 8,750 |
| Barge | | | 2 | 4,000 | 2 | 4,000 |
| Tonnage | | | 316 | | 316 | |
| Outfit | | | | 1,900 | | 1,900 |
| Boats: | | | | | | |
| Sail, row, etc. | 196 | 4,503 | 399 | 9,670 | 4,693 | 157,102 |
| Power | 432 | 182,780 | 364 | 136,881 | 5,671 | 2,123,611 |
| Apparatus, vessel fisheries: | | | | | | |
| Seines | 18 | 24,695 | 4 | 7,800 | 206 | 319,615 |
| Gill nets | 780 | 14,445 | 115 | 2,680 | 7,578 | 154,499 |
| Pound nets | 25 | 75,000 | | | 25 | 75,000 |
| Otter trawls | 20 | 973 | 14 | 680 | 166 | 22,023 |
| Lines, hand and trawl | | 785 | | 555 | | 169,745 |
| Harpoons | | 561 | | 600 | | 10,046 |
| Lobster pots | 635 | 1,985 | 480 | 745 | 2,630 | 5,975 |
| Dredges | 48 | 2,092 | 372 | 8,437 | 648 | 13,445 |
| Tongs and rakes | | | | | 3 | 49 |
| Whaling apparatus | | | | | | 29,000 |
| Apparatus, shore fisheries: | | | | | | |
| Seines | 11 | 899 | 54 | 4,893 | 235 | 95,892 |
| Gill nets | 360 | 7,300 | 204 | 13,910 | 7,038 | 169,747 |
| Pound nets, trap nets, and weirs | 108 | 101,750 | 42 | 9,112 | 1,094 | 1,012,997 |
| Fyke nets | 290 | 5,218 | 439 | 3,985 | 928 | 14,473 |
| Bag nets and pocket nets | | | | | 95 | 8,675 |
| Bow nets | | | | | 13 | 36 |
| Dip nets and scoop nets | 30 | 450 | 7 | 35 | 243 | 1,635 |
| Otter trawls | 43 | 2,425 | 53 | 2,394 | 326 | 15,964 |
| Lines, hand and trawl | | 4,492 | | 58 | | 117,834 |
| Harpoons | | 690 | | 80 | | 1,525 |
| Spears | | | 30 | 39 | 144 | 267 |
| Gunner traps | | | | | 84 | 146 |
| Eel pots and traps | 995 | 1,035 | 801 | 617 | 4,239 | 7,341 |
| Lobster pots | 21,936 | 65,346 | 16,173 | 42,534 | 236,928 | 606,232 |
| Crab traps | | | | | 180 | 330 |
| Dredges | 201 | 1,119 | 55 | 395 | 3,044 | 20,535 |
| Tongs and grabs | 247 | 1,999 | 244 | 1,994 | 726 | 5,348 |
| Rakes | 29 | 166 | 61 | 367 | 876 | 6,201 |
| Forks and hoes | 152 | 148 | 68 | 69 | 1,823 | 2,321 |
| Shovels | 43 | 43 | 13 | 13 | 56 | 56 |
| Cockle traps | | | | | 680 | 500 |
| Winkle pots | 260 | 880 | | | 260 | 880 |
| Shore and accessory property | | 978,622 | | 498,699 | | 20,354,089 |
| Cash capital | | 209,300 | | 98,500 | | 3,245,952 |
| Total | | 2,249,536 | | 1,645,793 | | 40,597,097 |

FISHERIES OF THE NEW ENGLAND STATES, 1919—Continued.

| Item. | Rhode Island. | | Connecticut. | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS. | | | | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | |
| Fresh | 269,565 | $5,916 | 177,150 | $6,637 | 2,125,002 | $43,078 |
| Salted | | | | | 1,265,994 | 56,171 |
| Smoked | | | | | 391,293 | 22,451 |
| Bluefish | 25,675 | 3,170 | 3,710 | 386 | 34,145 | 4,331 |
| Bonito | 114,810 | 10,825 | 6,120 | 912 | 310,701 | 29,759 |
| Bullheads | | | 1,492 | 100 | 1,492 | 100 |
| Butterfish | 758,845 | 39,188 | 18,810 | 2,607 | 1,107,246 | 71,636 |
| Carp | | | 40,141 | 4,922 | 40,141 | 4,922 |
| Cod: | | | | | | |
| Fresh | 1,148,331 | 49,747 | 96,136 | 9,603 | 80,758,886 | 3,368,877 |
| Salted | | | | | 4,158,649 | 229,014 |
| Cunner | 8,000 | 960 | | | 48,654 | 2,160 |
| Cusk: | | | | | | |
| Fresh | | | 6,767 | 73 | 2,616,651 | 88,807 |
| Salted | | | | | 16,870 | 759 |
| Eels | 274,735 | 29,637 | 63,046 | 9,839 | 1,018,998 | 112,679 |
| Flounders | 2,451,579 | 79,567 | 2,349,181 | 91,962 | 15,541,047 | 672,846 |
| Grayfish | | | | | 63,667 | 184 |
| Goosefish or monkfish | | | | | 2,500 | 7 |
| Haddock: | | | | | | |
| Fresh | 10,300 | 512 | 350 | 38 | 88,958,635 | 2,524,809 |
| Salted | | | | | 446,974 | 19,808 |
| Hake: | | | | | | |
| Fresh | | | 10,100 | 102 | 20,188,112 | 485,780 |
| Salted | | | | | 34,155 | 1,563 |
| Halibut: | | | | | | |
| Fresh | | | 25,000 | 5,000 | 1,950,985 | 333,073 |
| Salted | | | | | 9,045 | 1,140 |
| Herring: | | | | | | |
| Fresh | 169,630 | 4,010 | 2,000 | 71 | 97,630,195 | 589,093 |
| Salted | | | | | 6,200 | 187 |
| Smoked | | | | | 161,550 | 6,715 |
| Hickory shad | | | | | 12,800 | 830 |
| King whiting | | | | | 72 | 18 |
| Launce | | | | | 67,800 | 838 |
| Mackerel: | | | | | | |
| Fresh | 1,575,923 | 146,611 | 91,389 | 10,990 | 14,527,950 | 1,451,490 |
| Salted | | | | | 1,257,062 | 110,598 |
| Frigate | | | | | 61,361 | 1,862 |
| Menhaden | 21,536,000 | 268,700 | 6,736,551 | 93,312 | 28,433,783 | 364,243 |
| Minnows | | | | | 1,000 | 125 |
| Perch: | | | | | | |
| White | 5,043 | 702 | | | 11,243 | 1,622 |
| Yellow | | | 6,108 | 595 | 6,608 | 620 |
| Pickerel | | | 1,079 | 143 | 1,079 | 143 |
| Pollock: | | | | | | |
| Fresh | 99,400 | 5,920 | 10,135 | 717 | 24,924,686 | 588,908 |
| Salted | | | | | 84,953 | 4,214 |
| Pompano | | | | | 14 | 2 |
| Rosefish | | | | | 54,095 | 1,369 |
| Round herring | | | | | 941 | 19 |
| Salmon: | | | | | | |
| Atlantic | 70 | 12 | | | 20,680 | 7,938 |
| Humpback | | | | | 310 | 62 |
| Sculpin | | | | | 6,000 | 15 |
| Scup | 8,261,140 | 817,846 | 1,980 | 202 | 8,341,744 | 823,714 |
| Sea bass | 52,041 | 5,954 | 3,555 | 528 | 70,663 | 8,131 |
| Sea robin | | | | | 400 | 1 |
| Shad | | | 463,203 | 86,637 | 939,995 | 119,339 |
| Sharks | | | | | 368,146 | 4,548 |
| Skates and rays | | | 400 | 10 | 103,139 | 560 |
| Smelt | | | 25,217 | 4,466 | 588,334 | 109,652 |
| Squeteague | 353,860 | 33,829 | 23,076 | 3,257 | 382,713 | 37,994 |
| Striped bass | 33,705 | 5,236 | 4,810 | 1,059 | 40,078 | 6,639 |
| Sturgeon | | | 25 | 5 | 20,252 | 5,077 |
| Sturgeon caviar | | | | | 150 | 356 |
| Sturgeon roe | | | | | 324 | 460 |
| Suckers | | | 99,053 | 7,488 | 209,453 | 19,340 |
| Sunfish | | | 105 | 11 | 105 | 11 |
| Swordfish | 101,010 | 19,757 | 88,428 | 15,006 | 1,325,980 | 294,827 |
| Tautog | 371,660 | 22,191 | 21,942 | 2,068 | 485,492 | 33,146 |
| Tilefish | | | | | 188,180 | 9,803 |
| Tomcod | | | 455 | 37 | 155,505 | 4,787 |
| Tuna | 61,350 | 4,810 | 5,114 | 550 | 141,274 | 10,948 |
| Whiting: | | | | | | |
| Fresh | 1,583,700 | 16,010 | 9,317 | 175 | 16,196,637 | 169,766 |
| Salted | | | | | 3,000 | 90 |
| Wolffish | | | | | 375,146 | 11,280 |
| Other fish | | | | | 38,232 | 2,117 |
| Lobster | 1,694,327 | 360,679 | 740,848 | 189,157 | 10,666,707 | 2,550,980 |

FISHERIES OF THE NEW ENGLAND STATES, 1919—Continued.

| Item. | Rhode Island. | | Connecticut. | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Shrimp | | | | | 3,400 | $1,589 |
| Crabs: | | | | | | |
| Hard | 34,330 | $1,802 | | | 1,869,866 | 54,821 |
| Soft | | | | | 266 | 40 |
| Squid | 377,579 | 18,730 | 3,612 | $258 | 6,516,125 | 127,856 |
| Clams: | | | | | | |
| Hard— | | | | | | |
| Public | 156,232 | 59,649 | 49,976 | 18,912 | 1,059,512 | 349,903 |
| Private | | | | | 22,640 | 12,425 |
| Soft— | | | | | | |
| Public | 403,760 | 24,075 | 229,150 | 32,070 | 4,867,874 | 464,868 |
| Private | | | | | 125,000 | 10,750 |
| Razor | | | | | 23,300 | 3,500 |
| Oysters: | | | | | | |
| Market— | | | | | | |
| Public | | | 136,654 | 21,900 | 142,233 | 23,283 |
| Private | 6,261,759 | 1,242,585 | 4,826,668 | 471,766 | 11,857,482 | 1,992,515 |
| Seed— | | | | | | |
| Public | | | 740,516 | 68,349 | 763,616 | 69,669 |
| Private | | | 6,493,865 | 525,001 | 6,574,043 | 531,553 |
| Scallops | 33,994 | 14,608 | 38,400 | 13,717 | 1,477,392 | 499,123 |
| Mussels | 10,000 | 1,000 | | | 26,970 | 1,367 |
| Cockles and winkles | 10,500 | 2,100 | | | 587,900 | 5,525 |
| Blackfish | | | | | 40,000 | 40 |
| Porpoise | | | | | 750 | 15 |
| Livers | | | | | 426,162 | 6,556 |
| Spawn | | | | | 165,786 | 9,614 |
| Tongues and cheeks | | | | | 5,800 | 202 |
| Sounds | | | | | 5,212 | 96 |
| Oil: | | | | | | |
| Sperm | | | | | 1,545,413 | 218,111 |
| Liver | | | | | 8,625 | 895 |
| Ambergris | | | | | 30 | 5,000 |
| Alewife scales | | | | | 10,400 | 5,200 |
| Irish moss | 2,000 | 240 | | | 212,200 | 15,687 |
| Total | 48,250,883 | 3,296,578 | 23,652,647 | 1,700,638 | 467,339,870 | 19,838,657 |

CERTAIN OF THE FOREGOING SHELLFISH PRODUCTS IN BUSHELS AND NUMBER.

| Products. | Maine. | | New Hampshire. | | Massachusetts. | |
|---|---|---|---|---|---|---|
| | *Quantity.* | *Value.* | *Quantity.* | *Value.* | *Quantity.* | *Value.* |
| Clams: | | | | | | |
| Hard (quahogs)— | | | | | | |
| Public ... bushels | | | | | 106,663 | $271,342 |
| Private ... do | | | | | 2,830 | 12,425 |
| Soft— | | | | | | |
| Public ... do | 210,573 | $163,209 | 6,660 | $13,320 | 206,263 | 232,194 |
| Private ... do | | | | | 12,500 | 10,750 |
| Razor ... do | | | | | 2,330 | 3,500 |
| Oysters: | | | | | | |
| Market— | | | | | | |
| Public ... do | | | | | 797 | 1,383 |
| Private ... do | | | | | 109,865 | 278,164 |
| Seed— | | | | | | |
| Public ... do | | | | | 3,300 | 1,320 |
| Private ... do | | | | | 11,454 | 6,552 |
| Scallops ... do | 12,085 | 31,416 | | | 222,081 | 439,382 |
| Mussels ... do | 1,697 | 367 | | | | |
| Cockles ... do | | | | | 57,740 | 3,425 |
| Crabs: | | | | | | |
| Hard ... number | 211,725 | 3,595 | | | 5,294,883 | 49,424 |
| Soft ... do | | | | | 798 | 40 |

CERTAIN OF THE FOREGOING SHELLFISH PRODUCTS IN BUSHELS AND NUMBER—Continued.

| Products. | Rhode Island. | | Connecticut. | | Total. | |
|---|---|---|---|---|---|---|
| | *Quantity.* | *Value.* | *Quantity.* | *Value.* | *Quantity.* | *Value.* |
| Clams: | | | | | | |
| Hard (quahogs)— | | | | | | |
| Public.....bushels.. | 19,529 | $59,649 | 6,247 | $18,912 | 132,439 | $319,903 |
| Private.....do.... | | | | | 2,830 | 12,425 |
| Soft— | | | | | | |
| Public.....do.... | 40,375 | 24,075 | 22,915 | 32,070 | 486,787 | 464,868 |
| Private.....do.... | | | | | 12,500 | 10,750 |
| Razor.....do.... | | | | | 2,330 | 3,500 |
| Oysters: | | | | | | |
| Market— | | | | | | |
| Public.....do.... | | | 19,522 | 21,900 | 20,319 | 23,283 |
| Private.....do.... | 894,537 | 1,242,585 | 689,524 | 471,766 | 1,693,926 | 1,992,515 |
| Seed— | | | | | | |
| Public.....do.... | | | 105,788 | 68,349 | 109,088 | 69,669 |
| Private.....do.... | | | 927,695 | 525,001 | 939,149 | 531,553 |
| Scallops.....do.... | 5,666 | 14,608 | 6,400 | 13,717 | 246,232 | 499,123 |
| Mussels.....do.... | 1,000 | 1,000 | | | 2,697 | 1,367 |
| Cockles.....do.... | | | | | 57,740 | 3,425 |
| Winkles.....do.... | 1,050 | 2,100 | | | 1,050 | 2,100 |
| Crabs: | | | | | | |
| Hard.....number.. | | | | | 5,506,608 | 53,019 |
| Soft.....do.... | | | | | 798 | 40 |

EXTENT OF FISHERIES OF NEW ENGLAND STATES, VARIOUS YEARS, 1880 TO 1919.[1]

| Item. | 1880 | 1887 | 1888 | 1889 |
|---|---|---|---|---|
| PERSONS ENGAGED. | | | | |
| Maine | 11,071 | 15,323 | 15,171 | 14,129 |
| New Hampshire | 414 | 346 | 362 | 363 |
| Massachusetts | 20,117 | 17,053 | 17,037 | 17,239 |
| Rhode Island | 2,310 | 1,635 | 1,703 | 1,757 |
| Connecticut | 3,131 | 3,024 | 3,037 | 3,047 |
| Total | 37,043 | 37,381 | 37,310 | 36,539 |
| INVESTMENT. | | | | |
| Maine | $3,341,344 | $3,179,233 | $3,023,921 | $2,889,893 |
| New Hampshire | 209,465 | 106,110 | 107,144 | 112,660 |
| Massachusetts | 14,334,450 | 13,205,050 | 13,110,765 | 13,245,229 |
| Rhode Island | 596,678 | 992,761 | 1,022,876 | 1,020,173 |
| Connecticut | 1,421,020 | 2,897,687 | 2,869,314 | 2,826,834 |
| Total | 19,902,957 | 20,380,841 | 20,134,020 | 20,094,794 |
| PRODUCTS | | | | |
| Pounds: | | | | |
| Maine | | 131,379,591 | 132,929,594 | 129,559,864 |
| New Hampshire | | 4,254,727 | 3,843,479 | 4,354,568 |
| Massachusetts | | 299,544,343 | 302,045,686 | 299,217,669 |
| Rhode Island | | 45,284,872 | 91,687,487 | 127,365,474 |
| Connecticut | | 39,750,008 | 42,401,612 | 92,672,464 |
| Total | | 520,213,541 | 572,907,858 | 653,170,040 |
| Value: | | | | |
| Maine | $2,742,571 | $2,364,906 | $2,292,043 | $2,111,206 |
| New Hampshire | 170,634 | 99,460 | 90,044 | 88,51 |
| Massachusetts | 7,959,760 | 6,464,396 | 6,355,495 | 5,858,27 |
| Rhode Island | 696,814 | 683,495 | 825,092 | 935,14 |
| Connecticut | 933,242 | 300,746 | 297,337 | 1,557,50 |
| Total | 12,503,021 | 9,913,003 | 9,860,011 | 10,550,64 |

[1] The statistics for 1908 are from data published by the Bureau of the Census.

EXTENT OF FISHERIES OF NEW ENGLAND STATES, VARIOUS YEARS, 1880 TO 1919—Continued.

| Item. | 1898 | 1902 | 1905 | 1908 | 1919 |
|---|---|---|---|---|---|
| PERSONS ENGAGED. | | | | | |
| Maine | 16,954 | 19,832 | 15,881 | 6,861 | 14,286 |
| New Hampshire | 154 | 161 | 145 | 79 | 100 |
| Massachusetts | 14,363 | 14,300 | 15,694 | 11,577 | 12,346 |
| Rhode Island | 1,687 | 2,117 | 2,212 | 1,493 | 1,646 |
| Connecticut | 2,473 | 2,840 | 3,407 | 2,147 | 2,289 |
| Total | 35,631 | 39,250 | 37,339 | 22,157 | 30,767 |
| INVESTMENT. | | | | | |
| Maine | $4,013,053 | $6,939,503 | $8,972,049 | $2,411,000 | $17,514,969 |
| New Hampshire | 52,648 | 42,002 | 47,050 | 23,000 | 45,530 |
| Massachusetts | 13,372,902 | 10,811,594 | 10,810,442 | 5,750,000 | 19,111,209 |
| Rhode Island | 957,142 | 1,014,280 | 1,965,426 | 1,504,000 | 2,249,488 |
| Connecticut | 1,241,291 | 1,201,055 | 1,635,753 | 2,281,000 | 1,645,793 |
| Total | 19,637,036 | 20,008,434 | 22,530,720 | 11,969,000 | 40,597,049 |
| PRODUCTS. | | | | | |
| Pounds: | | | | | |
| Maine | 123,404,561 | 242,390,371 | 124,723,786 | 173,843,000 | 147,956,369 |
| New Hampshire | 3,020,715 | 1,593,013 | 1,036,452 | 677,000 | 528,730 |
| Massachusetts | 202,257,817 | 230,645,950 | 255,654,475 | 244,313,000 | 246,951,241 |
| Rhode Island | 32,854,336 | 21,613,964 | 23,896,243 | 44,254,000 | 48,250,883 |
| Connecticut | 31,920,417 | 37,832,149 | 74,972,648 | 66,942,000 | 23,632,647 |
| Total | 383,457,906 | 534,075,447 | 480,283,604 | 530,029,000 | 476,995,369 |
| Value: | | | | | |
| Maine | $2,654,919 | $2,918,772 | $2,386,406 | $3,257,000 | $3,889,035 |
| New Hampshire | 48,287 | 50,003 | 51,944 | 53,000 | 92,360 |
| Massachusetts | 4,463,727 | 6,482,427 | 7,025,249 | 7,095,000 | 16,539,746 |
| Rhode Island | 955,058 | 1,155,701 | 1,546,658 | 1,752,000 | 3,296,578 |
| Connecticut | 1,559,599 | 1,799,381 | 3,173,948 | 2,982,000 | 1,700,638 |
| Total | 9,682,290 | 12,406,284 | 14,184,205 | 15,139,000 | 19,887,406 |

## BY-PRODUCTS.

Only a few firms are engaged solely in the preparation of by-products in the New England States and several of these are the sole manufacturers of a particular product within the State or section, the greater part of the material being prepared incidental to other branches of the fishery trade. It is therefore impracticable to present a detailed table of this important industry for individual States. In the following table the quantity and value of the products are shown as completely as possible without disclosing private enterprise.

In view of the increased demand for protein feed for hogs, cattle, and poultry, it is suggested that New England producers of scrap and pomace give consideration to the manufacture of fish waste and waste fish into fish meal for feeding purposes.

QUANTITY AND VALUE OF VARIOUS FISHERY BY-PRODUCTS PREPARED IN NEW ENGLAND IN 1919.

| Item. | Maine. | | Massachusetts. | | Total. | |
|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Oil: | | | | | | |
| Liver ..... gallons.. | [1] 97,077 | $106,363 | 158,797 | $180,635 | [2] 255,874 | $286,998 |
| Herring ..... do.... | 23,861 | 14,569 | ..... | ..... | 23,861 | 14,569 |
| Sperm ..... do.... | ..... | ..... | 206,055 | 218,111 | [3] 206,055 | 218,111 |
| Liquid glue ..... do.... | 25,058 | 34,583 | [4] 388,252 | 474,924 | 413,310 | 509,507 |
| Fish scrap and meal .... pounds.. | 4,115,200 | 130,461 | 6,291,997 | 140,570 | 10,407,197 | 271,031 |
| Herring pomace ..... do.... | 1,271,424 | 16,411 | ..... | ..... | 1,271,424 | 16,411 |
| Other products | ..... | ..... | ..... | ..... | ..... | [5] 333,135 |
| Total | ..... | 302,387 | ..... | 1,014,238 | ..... | 1,649,762 |

[1] Includes a small quantity made in New Hampshire.
[2] Of this amount, 1,150 gallons, or 8,625 pounds, valued at $895, were produced by fishermen.
[3] All produced by fishermen.
[4] Includes a small quantity of dry glue.
[5] Includes value of oyster shell grit made in Rhode Island and menhaden oil, dry scrap, and acidulated scrap made in Connecticut.

## FISHERIES OF MAINE.

Maine ranks first among the New England States in the number of persons engaged in the fisheries and related industries, but is surpassed by Massachusetts in the amount of capital invested and the quantity and value of fishery products. In 1919 the number of persons engaged in the various branches of the fishery industry in Maine was 14,386, of whom 1,004 were on vessels fishing, 339 on vessels transporting fishery products, 5,332 in the shore or boat fisheries, and 7,711 in the wholesale fishery trade, canning sardines, and other fishery industries.

The amount of capital invested amounted to $17,544,969, which includes 351 fishing and transporting vessels, valued at $2,105,905, with a net tonnage of 5,004 tons and outfits valued at $300,036; 5,849 power, sail, row, and other small boats, valued at $985,719; fishing apparatus to the value of $1,259,031, of which gear to the value of $165,051 was employed in the vessel fisheries and gear to the value of $1,093,980 on boats; shore and accessory property to the value of $11,864,571; and cash or working capital to the amount of $1,029,707.

The products of the fisheries amounted to 147,956,369 pounds, valued at $3,889,035. This represents 31.65 per cent of the total quantity and 19.60 per cent of the total value of the products of the fisheries of the New England States in 1919. Compared with 1905 there was an increase of 18.62 per cent in quantity and 62.96 per cent in value to the fishermen. Compared with 1908 there was a decrease of 14.89 per cent in the quantity and an increase in the value of 19.40 per cent. Among the products of special importance were the following: Lobsters, 5,545,884 pounds, valued at $1,411,548; cod, fresh and salted, 14,078,389 pounds, valued at $542,139; herring, fresh, salted, and smoked, 86,813,876 pounds, valued at $462,506; haddock, fresh and salted, 11,197,811 pounds, valued at $335,027; and hake, fresh and salted, 16,113,635 pounds, valued at $329,483.

### FISHERIES BY COUNTIES.

Statistics as to number of persons employed, investment, and products of the fisheries of Maine in 1919 are given by counties in the following table:

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF MAINE IN 1919, BY COUNTIES.

| Item. | Cumberland. | | Hancock. | | Kennebec. | | Knox. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 321 | ..... | 180 | ..... | ..... | ..... | 254 | ..... |
| On vessels transporting | 19 | ..... | 64 | ..... | ..... | ..... | 47 | ..... |
| In shore fisheries | 621 | ..... | 1,489 | ..... | 36 | ..... | 676 | ..... |
| Shoresmen | 852 | ..... | 1,145 | ..... | ..... | ..... | 668 | ..... |
| Total | 1,813 | ..... | 2,878 | ..... | 36 | ..... | 1,645 | ..... |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF MAINE IN 1919, BY COUNTIES—Continued.

| Item. | Cumberland. | | Hancock. | | Kennebec. | | Knox. | |
|---|---|---|---|---|---|---|---|---|
| INVESTMENT. | | | | | | | | |
| | Number. | Value. | Number. | Value. | Number. | Value. | Number. | Value. |
| Vessels fishing: | | | | | | | | |
| Steam | 1 | $2,500 | | | | | | |
| Tonnage | 9 | | | | | | 4 | $1,000,000 |
| Outfit | | 300 | | | | | 653 | |
| Gasoline | 62 | 214,250 | 27 | $36,500 | | | | 69,750 |
| Tonnage | 808 | | 272 | | | | 40 | 66,200 |
| Outfit | | 40,382 | | 9,855 | | | 308 | |
| Sail | | | 4 | 53,000 | | | | 8,730 |
| Tonnage | | | 392 | | | | | |
| Outfit | | | | 25,800 | | | | |
| Vessels transporting: | | | | | | | | |
| Gasoline | 9 | 26,900 | 29 | 69,530 | | | 22 | 84,200 |
| Tonnage | 70 | | 290 | | | | 213 | |
| Outfit | | 3,075 | | 21,250 | | | | 13,128 |
| Sail | | | 1 | 15,000 | | | | |
| Tonnage | | | 75 | | | | | |
| Outfit | | | | 6,200 | | | | |
| Boats: | | | | | | | | |
| Power | 488 | 173,325 | 832 | 286,210 | | | 522 | 147,900 |
| Sail, row, etc | 150 | 4,070 | 654 | 15,195 | 12 | $320 | 537 | 17,995 |
| Apparatus, vessel fisheries: | | | | | | | | |
| Otter trawls | 3 | 90 | | | | | | |
| Lines | | 18,112 | | 4,305 | | | 5 | 2,050 |
| Seines | 35 | 26,320 | 11 | 12,700 | | | | 3,545 |
| Gill nets | 813 | 22,590 | | | | | 15 | 19,300 |
| Harpoons | | 1,705 | | | | | 50 | 750 |
| Lobster pots | | | 220 | 495 | | | | 25 |
| Dredges | | | | | | | 865 | 1,700 |
| Apparatus, shore fisheries: | | | | | | | 4 | 400 |
| Pound nets, trap nets, and weirs | 17 | 11,800 | 243 | 170,225 | | | 75 | 59,400 |
| Lines, hand and trawl | | 13,084 | | 25,376 | | | | 8,255 |
| Gill nets | 1,020 | 29,630 | 213 | 6,265 | 19 | 550 | 6 | 120 |
| Seines | 42 | 14,130 | 10 | 10,150 | | | 20 | 3,200 |
| Bag nets and pocket nets | | | 15 | 1,025 | 6 | 450 | | |
| Fyke nets | 1 | 200 | | | 81 | 1,485 | | |
| Dip nets | | | 4 | 12 | | | 22 | 43 |
| Lobster pots | 20,696 | 41,734 | 38,101 | 96,291 | | | 28,270 | 55,505 |
| Eel pots and traps | | | 60 | 90 | 28 | 55 | 12 | 25 |
| Otter trawls | 15 | 475 | 1 | 60 | | | 5 | 250 |
| Crab traps | 180 | 330 | | | | | | |
| Cunner traps | 80 | 140 | | | | | | |
| Spears | | | 13 | 15 | | | | |
| Harpoons | | 30 | | | | | | |
| Hoes and forks | 119 | 119 | 424 | 424 | | | 69 | 70 |
| Dredges | | | 15 | 1,650 | | | 9 | 850 |
| Shore and accessory property | | 1,868,540 | | 1,538,545 | | | | 1,363,515 |
| Cash capital | | 440,607 | | 116,550 | | | | 181,820 |
| Total | | 2,954,438 | | 2,522,718 | | 2,860 | | 3,108,726 |
| PRODUCTS. | | | | | | | | |
| | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Alewives: | | | | | | | | |
| Fresh | 4,925 | $51 | 134,635 | $3,628 | | | 224,200 | $484 |
| Salted | | | 60 | 6 | | | | |
| Smoked | | | 39,973 | 3,077 | | | 109,620 | 6,187 |
| Bluefish | 39 | 7 | | | | | | |
| Bonito | 44 | 4 | | | | | | |
| Butterfish | 15,135 | 1,392 | | | | | 178 | 21 |
| Catfish and wolffish | 36,622 | 772 | 86 | 2 | | | 46,309 | 1,266 |
| Cod: | | | | | | | | |
| Fresh | 3,841,651 | 164,430 | 2,627,161 | 67,777 | | | 2,751,122 | 98,607 |
| Salted | | | 954,959 | 59,960 | | | 2,000 | 300 |
| Cunner | 30,695 | 615 | | | | | | |
| Cusk | 564,601 | 20,189 | 113,772 | 1,599 | | | 72,749 | 1,510 |
| Eels | | | 7,050 | 950 | 7,050 | $609 | 1,000 | 100 |
| Flounders | 145,223 | 4,309 | 17,830 | 805 | | | 124,537 | 6,541 |
| Haddock: | | | | | | | | |
| Fresh | 1,459,468 | 40,701 | 579,031 | 23,267 | | | 7,683,357 | 220,907 |
| Salted | | | 73,400 | 2,812 | | | | |
| Hake: | | | | | | | | |
| Fresh | 1,991,536 | 80,874 | 9,648,570 | 149,679 | | | 2,456,424 | 44,929 |
| Salted | | | 260 | 15 | | | 500 | 75 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF MAINE IN 1919, BY COUNTIES—Continued.

| Item. | Cumberland. | | Hancock. | | Kennebec. | | Knox. | |
|---|---|---|---|---|---|---|---|---|
| PRODUCTS—continued. | | | | | | | | |
| Halibut: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | 38,215 | $6,507 | 21,087 | $3,522 | | | 72,048 | $9,918 |
| Salted | | | 1,000 | 80 | | | | |
| Herring: | | | | | | | | |
| Fresh | 3,390,072 | 33,763 | 22,178,901 | 122,641 | | | 9,888,575 | 45,009 |
| Smoked | | | | | | | 29,000 | 1,700 |
| Mackerel, fresh | 223,184 | 33,918 | 16,214 | 2,100 | | | 41,747 | 5,926 |
| Pollock: | | | | | | | | |
| Fresh | 1,984,382 | 45,739 | 817,583 | 12,212 | | | 1,321,818 | 24,136 |
| Salted | | | 7,700 | 245 | | | | |
| Rosefish | 15,617 | 219 | | | | | | |
| Salmon, Atlantic | 961 | 89 | 7,050 | 2,795 | | | | |
| Shad | 22,032 | 1,584 | 78,286 | 4,840 | 7,280 | $1,365 | 120,843 | 2,429 |
| Sharks | 27,729 | 622 | | | | | 529 | 15 |
| Skates | 2,385 | 47 | | | | | | |
| Smelt | 136,202 | 12,345 | 95,435 | 16,470 | 1,350 | 340 | 93,600 | 17,150 |
| Sturgeon | 1,618 | 177 | 2,000 | 160 | | | 781 | 207 |
| Suckers | 3,000 | 240 | | | 55,300 | 6,540 | | |
| Swordfish | 307,711 | 74,515 | | | | | 27,000 | 5,840 |
| Tautog | 11 | 2 | | | | | | |
| Tomcod | | | | | 65,175 | 1,955 | | |
| Tuna | 8,734 | 600 | | | | | | |
| Whiting: | | | | | | | | |
| Fresh | 610,535 | 4,016 | | | | | 11,100 | 61 |
| Salted | 3,000 | 90 | | | | | | |
| Squid | 377 | 4 | | | | | | |
| Lobsters | 670,050 | 187,904 | 1,394,959 | 346,903 | | | 1,362,219 | 348,850 |
| Crabs, hard | 70,575 | 3,595 | | | | | | |
| Clams, soft | 442,659 | 48,131 | 636,135 | 42,416 | | | 162,070 | 10,376 |
| Scallops | | | 30,800 | 14,200 | | | 41,712 | 17,216 |
| Mussels | | | | | | | 16,970 | 367 |
| Sounds | 692 | 13 | 120 | 1 | | | 4,200 | 42 |
| Spawn | 10,546 | 363 | | | | | 272 | 20 |
| Livers | 74,949 | 1,009 | 1,100 | 13 | | | 3,063 | 40 |
| Total | 16,135,178 | 768,836 | 39,485,158 | 882,175 | 136,155 | 10,809 | 26,669,546 | 870,229 |

| Item. | Lincoln. | | Penobscot. | | Sagadahoc. | | Waldo. | |
|---|---|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 88 | | | | | | | |
| On vessels transporting | 4 | | | | | | 8 | |
| In shore fisheries | 588 | | 53 | | 263 | | 146 | |
| Shoresmen | 92 | | 61 | | 5 | | 154 | |
| Total | 772 | | 114 | | 268 | | 308 | |
| INVESTMENT. | | | | | | | | |
| Vessels fishing: Gasoline | 17 | $82,700 | | | | | | |
| Tonnage | 164 | | | | | | | |
| Outfit | | 7,051 | | | | | | |
| Vessels transporting: | | | | | | | | |
| Gasoline | 2 | 4,200 | | | | | 8 | $18,800 |
| Tonnage | 16 | | | | | | 69 | |
| Outfit | | 1,165 | | | | | | 2,225 |
| Boats: | | | | | | | | |
| Power | 298 | 73,010 | 4 | $600 | 136 | $28,140 | 56 | 14,075 |
| Sail, row, etc | 410 | 11,440 | 39 | 1,550 | 162 | 4,890 | 186 | 10,054 |
| Apparatus, vessel fisheries: | | | | | | | | |
| Otter trawls | 1 | 50 | | | | | | |
| Lines | | 1,590 | | | | | | |
| Seines | 18 | 25,500 | | | | | | |
| Gill nets | 15 | 400 | | | | | | |
| Apparatus, shore fisheries: | | | | | | | | |
| Pound nets, trap nets, and weirs | 25 | 15,050 | 1 | 100 | 32 | 22,500 | 103 | 77,315 |
| Lines, hand and trawl | | 4,145 | | 1,200 | | 2,901 | | 200 |
| Gill nets | 759 | 18,755 | 60 | 705 | 287 | 8,776 | | |
| Seines | 18 | 7,550 | | | 3 | 500 | | |
| Bag nets and pocket nets | 16 | 1,200 | 6 | 550 | 9 | 750 | 13 | 1,300 |
| Fyke nets | 41 | 1,160 | | | 23 | 840 | | |
| Dip nets | 4 | 6 | | | | | | |
| Lobster pots | 16,366 | 33,175 | | | 3,213 | 6,505 | 600 | 1,200 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF MAINE IN 1919, BY COUNTIES—Continued.

| Item. | Lincoln. | | Penobscot. | | Sagadahoc. | | Waldo. | |
|---|---|---|---|---|---|---|---|---|
| INVESTMENT—continued. | | | | | | | | |
| Apparatus, shore fisheries—Continued. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Eel pots and traps | 43 | $75 | 30 | $60 | 289 | $546 | 55 | $115 |
| Otter trawls | 11 | 500 | | | 7 | 350 | | |
| Spears | 25 | 30 | | | | | | |
| Harpoons | | 55 | | | | 30 | | |
| Hoes and forks | 78 | 90 | | | 9 | 17 | | |
| Shore and accessory property | | 141,640 | | 82,600 | | 12,710 | | 195,216 |
| Cash capital | | 34,530 | | 10,000 | | 1,500 | | 20,000 |
| Total | | 465,067 | | 97,365 | | 90,955 | | 340,500 |
| PRODUCTS. | | | | | | | | |
| Alewives: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | 40,200 | $296 | 19,000 | $400 | 3,200 | $85 | 7,000 | $190 |
| Salted | 6,800 | 170 | | | | | | |
| Smoked | 104,700 | 3,392 | | | 74,000 | 5,700 | | |
| Butterfish | 800 | 80 | | | 16,650 | 1,538 | | |
| Catfish and wolffish | 100 | 7 | | | | | | |
| Cod: | | | | | | | | |
| Fresh | 809,711 | 26,486 | | | 330,728 | 16,079 | 14,300 | 600 |
| Salted | 3,000 | 180 | | | | | | |
| Cusk | 46,971 | 1,440 | | | 14,720 | 587 | | |
| Eels | 52,000 | 4,060 | 24,000 | 2,400 | 175,650 | 12,525 | 8,000 | 800 |
| Flounders | 52,403 | 3,748 | | | 39,950 | 3,196 | | |
| Haddock, fresh | 188,714 | 5,593 | | | 32,382 | 1,187 | 2,000 | 80 |
| Hake, fresh | 1,079,617 | 18,805 | | | 309,940 | 12,238 | 4,300 | 130 |
| Halibut, fresh | 811 | 122 | | | 11,040 | 1,750 | | |
| Herring: | | | | | | | | |
| Fresh | 5,174,117 | 41,658 | | | 641,400 | 5,011 | 5,479,880 | 22,518 |
| Smoked | 120,000 | 4,200 | | | | | | |
| Mackerel: | | | | | | | | |
| Fresh | 170,511 | 24,049 | | | 72,143 | 8,801 | 8,707 | 1,354 |
| Salted | 8,000 | 650 | | | | | | |
| Pollock, fresh | 468,170 | 9,076 | | | 109,650 | 1,773 | 4,000 | 110 |
| Rosefish | 800 | 12 | | | | | | |
| Salmon, Atlantic | | | 2,650 | 1,131 | 4,812 | 1,745 | 3,857 | 1,845 |
| Shad | 139,384 | 11,174 | 13 | 8 | 39,050 | 6,330 | 3,121 | 220 |
| Sharks | 9,644 | 193 | | | | | | |
| Smelt | 53,500 | 13,242 | 1,900 | 475 | 74,230 | 18,811 | 23,450 | 5,862 |
| Striped bass | | | | | 535 | 101 | 57 | 12 |
| Sturgeon | 950 | 184 | | | 2,777 | 986 | | |
| Sturgeon roe | | | | | 143 | 297 | | |
| Suckers | 40,500 | 3,810 | | | 11,600 | 1,262 | | |
| Tomcod | 37,160 | 1,116 | 24,000 | 600 | | | 15,000 | 375 |
| Tuna | 17,300 | 1,088 | | | 5,875 | 352 | | |
| Whiting, fresh | 400 | 4 | | | 59,600 | 596 | | |
| Lobsters | 619,886 | 152,327 | | | 147,664 | 39,739 | 8,800 | 640 |
| Clams, soft | 192,600 | 15,252 | | | 7,860 | 899 | | |
| Spawn | 163 | 8 | | | | | | |
| Livers | 4,375 | 73 | | | | | | |
| Total | 9,443,287 | 342,495 | 71,563 | 5,014 | 2,185,599 | 141,588 | 5,582,472 | 34,736 |

| Item. | Washington. | | York. | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 58 | | 103 | | 1,004 | |
| On vessels transporting | 197 | | | | 339 | |
| In shore fisheries | 1,263 | | 197 | | 5,332 | |
| Snoresmen | 4,725 | | 9 | | 7,711 | |
| Total | 6,243 | | 309 | | 14,386 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Steam | | | | | 5 | $1,002,500 |
| Tonnage | | | | | 662 | |
| Outfit | | | | | | 70,050 |
| Gasoline | 13 | $33,500 | 14 | $81,500 | 173 | 514,650 |
| Tonnage | 176 | | 311 | | 2,039 | |
| Outfit | | 11,228 | | 13,767 | | 91,013 |
| Sail | | | | | 4 | 53,000 |
| Tonnage | | | | | 392 | |
| Outfit | | | | | | 25,800 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF MAINE IN 1919, BY COUNTIES—Continued.

| Item. | Washington. | | York. | | Total. | |
|---|---|---|---|---|---|---|
| INVESTMENT—continued. | | | | | | |
| Vessels transporting: | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Steam | 2 | $9,000 | | | 2 | $9,000 |
| Tonnage | 28 | | | | 28 | |
| Outfit | | 2,800 | | | | 2,800 |
| Gasoline | 95 | 306,410 | | | 165 | 510,940 |
| Tonnage | 1,104 | | | | 1,762 | |
| Outfit | | 63,155 | | | | 103,998 |
| Sail | 1 | 1,715 | | | 2 | 10,715 |
| Tonnage | 46 | | | | 121 | |
| Outfit | | 175 | | | | 6,375 |
| Boats: | | | | | | |
| Power | 613 | 139,945 | 141 | $38,875 | 3,090 | 902,080 |
| Sail, row, etc. | 567 | 16,550 | 42 | 1,575 | 2,759 | 83,639 |
| Apparatus, vessel fisheries: | | | | | | |
| Otter trawls | | | 4 | 330 | 13 | 2,520 |
| Lines | | 745 | | 6,450 | | 34,747 |
| Seines | 5 | 9,450 | | | 84 | 93,270 |
| Gill nets | | | 375 | 5,949 | 1,253 | 29,689 |
| Harpoons | | | | 500 | | 2,230 |
| Lobster pots | | | | | 1,085 | 2,195 |
| Dredges | | | | | 4 | 400 |
| Apparatus, shore fisheries: | | | | | | |
| Pound nets, trap nets, and weirs | 194 | 158,275 | | | 690 | 514,665 |
| Lines, hand and trawl | | 4,245 | | 2,004 | | 61,410 |
| Gill nets | 65 | 1,573 | 357 | 4,849 | 2,786 | 71,214 |
| Seines | 6 | 4,700 | 4 | 3,825 | 103 | 44,055 |
| Bag nets and pocket nets | 35 | 3,400 | | | 95 | 8,675 |
| Fyke nets | | | | | 146 | 3,085 |
| Dip nets | 58 | 295 | 14 | 420 | 102 | 776 |
| Lobster pots | 38,685 | 126,630 | 7,601 | 21,218 | 153,532 | 382,258 |
| Eel pots and traps | 63 | 194 | 19 | 38 | 599 | 1,198 |
| Otter trawls | | | | | 36 | 1,635 |
| Crab traps | | | | | 180 | 330 |
| Cunner traps | | | | | 80 | 140 |
| Spears | | | 4 | 12 | 42 | 57 |
| Harpoons | | | | 100 | | 215 |
| Hoes and forks | 396 | 431 | 8 | 16 | 1,103 | 1,167 |
| Dredges | | | | | 24 | 2,500 |
| Shore and accessory property | | 6,646,220 | | 15,585 | | 11,864,571 |
| Cash capital | | 222,700 | | 2,000 | | 1,029,707 |
| Total | | 7,763,336 | | 199,004 | | 17,544,969 |
| PRODUCTS. | | | | | | |
| Alewives: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | 147,650 | $2,321 | | | 580,811 | $7,455 |
| Salted | | | | | 6,860 | 176 |
| Smoked | 24,000 | 1,250 | | | 352,293 | 19,606 |
| Bluefish | | | | | 39 | 7 |
| Bonito | | | | | 44 | 4 |
| Butterfish | | | | | 32,763 | 3,031 |
| Catfish and wolffish | | | 841 | $14 | 83,958 | 2,061 |
| Cod: | | | | | | |
| Fresh | 1,204,742 | 36,935 | 1,515,730 | 68,913 | 13,095,145 | 479,827 |
| Salted | 16,925 | 1,445 | 6,360 | 427 | 983,244 | 62,312 |
| Cunner | | | | | 30,695 | 615 |
| Cusk | 15,649 | 353 | 218,285 | 7,902 | 1,046,147 | 33,581 |
| Eels | 18,300 | 2,125 | 12,000 | 1,680 | 305,050 | 25,249 |
| Flounders | 2,740 | 251 | 86,911 | 3,377 | 469,594 | 22,227 |
| Haddock: | | | | | | |
| Fresh | 142,685 | 5,522 | 1,036,774 | 34,958 | 11,124,411 | 332,215 |
| Salted | | | | | 73,400 | 2,812 |
| Hake: | | | | | | |
| Fresh | 140,278 | 2,862 | 477,910 | 19,710 | 16,108,575 | 329,227 |
| Salted | 4,300 | 166 | | | 5,060 | 256 |
| Halibut: | | | | | | |
| Fresh | 53,345 | 6,422 | 20,930 | 3,600 | 217,476 | 31,841 |
| Salted | | | | | 1,000 | 80 |
| Herring: | | | | | | |
| Fresh | 39,893,181 | 185,004 | | | 86,646,126 | 455,604 |
| Salted | 6,200 | 187 | | | 6,200 | 187 |
| Smoked | 12,550 | 815 | | | 161,550 | 6,715 |
| Mackerel: | | | | | | |
| Fresh | | | 61,000 | 5,280 | 593,506 | 81,428 |
| Salted | | | | | 8,000 | 650 |
| Pollock: | | | | | | |
| Fresh | 638,680 | 12,657 | 252,880 | 7,784 | 5,597,163 | 113,487 |
| Salted | 25,100 | 2,095 | 2,000 | 100 | 34,800 | 2,440 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF THE FISHERIES OF MAINE IN 1919, BY COUNTIES—Continued.

| Item. | Washington. | | York. | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | | | | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Rosefish | | | 905 | $14 | 17,322 | $245 |
| Salmon: | | | | | | |
| Atlantic | 1,280 | $321 | | | 20,610 | 7,926 |
| Humpback | 310 | 62 | | | 310 | 62 |
| Shad | 4,000 | 390 | 446 | 53 | 414,455 | 28,393 |
| Sharks | | | 1,845 | 54 | 39,747 | 884 |
| Skates | | | | | 2,385 | 47 |
| Smelt | 36,300 | 8,226 | 8,000 | 1,575 | 523,967 | 94,496 |
| Striped bass | | | | | 592 | 113 |
| Sturgeon | | | | | 8,129 | 1,714 |
| Sturgeon roe | | | | | 143 | 297 |
| Suckers | | | | | 110,400 | 11,852 |
| Swordfish | | | 90,102 | 24,379 | 424,813 | 104,734 |
| Tautog | | | | | 14 | 2 |
| Tomcod | 5,825 | 465 | | | 147,160 | 4,511 |
| Tuna | | | | | 31,909 | 2,040 |
| Whiting: | | | | | | |
| Fresh | 3,337 | 56 | | | 684,970 | 4,727 |
| Salted | | | | | 3,000 | 90 |
| Squid | | | | | 377 | 4 |
| Lobsters | 849,306 | 206,425 | 493,000 | 128,760 | 5,545,884 | 1,411,548 |
| Crabs, hard | | | | | [1] 70,575 | 3,595 |
| Clams, soft | 651,916 | 43,365 | 12,300 | 2,770 | [2] 2,105,734 | 163,209 |
| Scallops | | | | | [3] 72,512 | 31,416 |
| Mussels | | | | | [4] 16,970 | 367 |
| Tongues and cheeks | 2961 | 40 | 5,000 | 150 | 5,200 | 190 |
| Sounds | 240 | 10 | | | 5,212 | 96 |
| Spawn | 29 | 1 | 7,847 | 386 | 18,857 | 778 |
| Livers | 17,025 | 331 | 12,075 | 186 | 112,587 | 1,712 |
| Oil, liver | 3,775 | 375 | 4,875 | 520 | [5] 8,625 | 895 |
| Total | 43,919,195 | 520,561 | 4,328,216 | 312,592 | 147,956,369 | 3,889,035 |

[1] 211,725 in number.
[2] 210,573 bushels.
[3] 12,085 bushels.
[4] 1,697 bushels.
[5] 1,150 gallons.

FISHERIES BY APPARATUS.

In the fisheries of Maine in 1919 pots ranked above all other forms of apparatus in the value of their catch, with 5,793,784 pounds of lobsters, valued at $1,432,004, and 247,950 pounds of eels, valued at $20,480. Lines ranked second with 32,992,588 pounds, valued at $978,134, the principal species taken with lines arranged in the order of their value being: Cod, 7,432,231 pounds, valued at $397,322; hake, 15,230,183 pounds, valued at $309,878; and haddock, 3,857,610 pounds, valued at $129,678. The yield of the pound net, trap net, and weir fishery amounted to 76,231,256 pounds, valued at $452,146, of which 74,043,982 pounds, valued at $362,339, were herring. Otter trawls taking mostly haddock, cod, and flounders, yielded 9,316,245 pounds, valued at $296,356. Various species were taken in seines to the amount of 15,626,164 pounds, valued at $220,530, and in gill nets to the amount of 4,283,308 pounds, valued at $156,546. The catch with hoes and forks, consisting principally of soft clams, amounted to 2,122,704 pounds, valued at $163,576; and that with harpoons, consisting mostly of swordfish, amounted to 452,633 pounds, valued at $106,499. The combined catch of all forms of fishing apparatus employed in both the shore and vessel fisheries amounted to 147,956,369 pounds, valued at $3,889,035.

The following tables show by counties, apparatus, and species the products of the vessel and shore fisheries of Maine in 1919:

YIELD OF VESSEL FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES.

| Apparatus and species. | Cumberland. | | Hancock. | | Knox. | | Lincoln. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls: | | | | | | | | |
| Butterfish | | | | | 25 | $3 | | |
| Catfish and wolf-fish | | | | | 45,660 | 1,241 | | |
| Cod | | | | | 1,389,051 | 59,729 | | |
| Flounders | 20,034 | $631 | | | 67,301 | 3,088 | 8,695 | $260 |
| Haddock | | | | | 7,001,906 | 196,054 | | |
| Hake | | | | | 52,262 | 2,144 | | |
| Halibut | | | | | 46,207 | 7,856 | | |
| Pollock | | | | | 64,940 | 1,560 | | |
| Sharks | | | | | 19 | 1 | | |
| Sturgeon | | | | | 784 | 207 | | |
| Spawn | | | | | 150 | 11 | | |
| Total | 20,034 | 631 | | | 8,668,305 | 271,897 | 8,695 | 260 |
| Lines: | | | | | | | | |
| Catfish and wolf-fish | 5,815 | 152 | 86 | $2 | 649 | 25 | 100 | 7 |
| Cod— | | | | | | | | |
| Fresh | 1,384,643 | 59,534 | 285,519 | 6,908 | 505,993 | 17,025 | 69,484 | 2,683 |
| Salted | | | 951,000 | 59,660 | | | | |
| Cusk | 483,865 | 17,310 | 1,816 | 29 | 21,129 | 562 | 13,936 | 497 |
| Flounders | 5,823 | 95 | 30 | 1 | 286 | 6 | 123 | 2 |
| Haddock— | | | | | | | | |
| Fresh | 696,608 | 19,616 | 14,920 | 734 | 320,181 | 9,813 | 18,080 | 482 |
| Salted | | | 73,400 | 2,812 | | | | |
| Hake | 839,392 | 34,380 | 108,385 | 1,999 | 853,597 | 15,378 | 138,749 | 3,001 |
| Halibut— | | | | | | | | |
| Fresh | 34,353 | 5,842 | 3,707 | 556 | 3,566 | 540 | 11 | 2 |
| Salted | | | 1,000 | 80 | | | | |
| Pollock— | | | | | | | | |
| Fresh | 146,531 | 4,952 | 43,443 | 626 | 206,982 | 3,641 | 3,931 | 106 |
| Salted | | | 7,700 | 245 | | | | |
| Rosefish | 14,332 | 199 | | | | | 800 | 12 |
| Sharks | 1,827 | 49 | | | 200 | 5 | 644 | 13 |
| Skates | 188 | 3 | | | | | | |
| Sounds | | | 120 | 1 | | | | |
| Spawn | 7,240 | 263 | | | 122 | 9 | 163 | 8 |
| Livers | 24,893 | 454 | | | 2,413 | 32 | 4,375 | 73 |
| Total | 3,645,510 | 142,849 | 1,491,126 | 73,653 | 1,915,118 | 47,036 | 250,396 | 6,886 |
| Seines: | | | | | | | | |
| Alewives | 3,800 | 45 | | | | | 5,000 | 39 |
| Butterfish | 628 | 80 | | | 153 | 15 | | |
| Cod | | | 1,934 | 83 | | | 612 | 26 |
| Flounders | 20 | 1 | | | | | | |
| Haddock | | | | | | | 25 | 1 |
| Hake | | | 110 | 5 | | | | |
| Herring | 3,167,907 | 31,542 | 776,500 | 7,655 | 1,029,975 | 8,244 | 2,827,367 | 25,763 |
| Mackerel— | | | | | | | | |
| Fresh | 25,488 | 4,004 | 11,214 | 1,650 | 20,126 | 3,239 | 98,344 | 15,029 |
| Salted | | | | | | | 8,000 | 650 |
| Pollock | 139,094 | 3,342 | 283,580 | 4,928 | 725,592 | 12,513 | 85,561 | 1,545 |
| Salmon, Atlantic | 7 | 2 | | | | | | |
| Shad | 9,368 | 695 | 68,286 | 4,140 | 118,343 | 2,229 | 103,336 | 6,440 |
| Sharks | 5,275 | 142 | | | 310 | 9 | | |
| Smelt | 16,422 | 1,565 | | | | | | |
| Sturgeon | 202 | 15 | | | | | | |
| Whiting | 2,065 | 16 | | | 11,100 | 61 | 400 | 4 |
| Livers | 1,023 | 16 | 1,100 | 13 | 650 | 8 | | |
| Total | 3,371,299 | 41,465 | 1,142,724 | 18,474 | 1,906,249 | 26,318 | 3,128,645 | 49,497 |
| Gill nets: | | | | | | | | |
| Catfish and wolf-fish | 978 | 33 | | | | | | |
| Cod—Fresh | 543,253 | 22,660 | | | | | 11,500 | 345 |
| Cusk | 1,620 | 103 | | | | | | |
| Flounders | 2,690 | 60 | | | | | | |
| Haddock | 164,591 | 4,556 | | | | | 1,230 | 38 |
| Hake | 37,107 | 1,449 | | | | | 950 | 18 |
| Halibut | 18 | 2 | | | | | | |
| Mackerel | 46,115 | 6,011 | | | 12,500 | 1,500 | | |
| Pollock | 626,359 | 15,032 | | | | | 1,450 | 27 |
| Rosefish | 55 | 2 | | | | | | |

YIELD OF VESSEL FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Cumberland. | | Hancock. | | Knox. | | Lincoln. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Gill nets—Continued. | | | | | | | | |
| Shad | 262 | $23 | | | | | | |
| Sharks | 4,150 | 101 | | | | | | |
| Skates | 55 | 2 | | | | | | |
| Sturgeon | 400 | 47 | | | | | | |
| Lobsters | 50 | 24 | | | | | | |
| Spawn | 1,110 | 34 | | | | | | |
| Livers | 5,906 | 106 | | | | | | |
| Total | 1,434,719 | 50,245 | | | 12,500 | $1,500 | 15,130 | $428 |
| Harpoons: Swordfish | 305,200 | 73,963 | | | | | | |
| Lobster pots: Lobsters | | | 14,845 | $3,750 | 27,000 | 5,840 | | |
| Dredges: Scallops | | | | | 48,125 | 12,033 | | |
| | | | | | 12,968 | 5,349 | | |
| Grand total | 8,776,762 | 309,153 | 2,648,695 | 95,877 | 12,590,265 | 369,973 | 3,402,866 | 57,071 |

| Apparatus and species. | Washington. | | York. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls: | | | | | | |
| Butterfish | | | | | 25 | $6 |
| Catfish and wolffish | | | | | 45,660 | 1,241 |
| Cod | | | | | 1,389,051 | 59,729 |
| Flounders | | | 31,000 | $1,050 | 127,030 | 5,029 |
| Haddock | | | | | 7,001,906 | 196,054 |
| Hake | | | | | 52,262 | 2,144 |
| Halibut | | | | | 46,207 | 7,856 |
| Pollock | | | 270 | 9 | 65,210 | 1,569 |
| Sharks | | | | | 19 | 1 |
| Sturgeon | | | | | 784 | 207 |
| Spawn | | | | | 150 | 11 |
| Total | | | 31,270 | 1,059 | 8,728,304 | 273,847 |
| Lines: | | | | | | |
| Catfish and wolffish | | | 662 | 11 | 7,312 | 197 |
| Cod— | | | | | | |
| Fresh | 270,390 | $8,278 | 1,045,546 | 44,994 | 3,561,575 | 139,422 |
| Salted | 500 | 60 | | | 951,500 | 59,720 |
| Cusk | 11,040 | 275 | 208,076 | 7,519 | 739,862 | 26,192 |
| Flounders | 240 | 1 | | | 6,502 | 105 |
| Haddock— | | | | | | |
| Fresh | 18,075 | 688 | 829,952 | 23,236 | 1,897,816 | 54,569 |
| Salted | | | | | 73,400 | 2,812 |
| Hake | 17,643 | 651 | 385,266 | 15,797 | 2,343,032 | 71,206 |
| Halibut— | | | | | | |
| Fresh | 15,180 | 1,985 | 17,880 | 3,039 | 74,697 | 11,964 |
| Salted | | | | | 1,000 | 80 |
| Pollock— | | | | | | |
| Fresh | 42,630 | 701 | 32,550 | 784 | 476,067 | 10,810 |
| Salted | | | | | 7,700 | 245 |
| Rosefish | | | 905 | 14 | 16,037 | 225 |
| Sharks | | | 155 | 3 | 2,826 | 70 |
| Skates | | | | | 188 | 3 |
| Sounds | | | | | 120 | 1 |
| Spawn | 29 | 1 | 7,529 | 369 | 15,083 | 650 |
| Livers | 25 | 1 | 11,125 | 174 | 42,831 | 734 |
| Total | 375,752 | 12,641 | 2,539,646 | 95,940 | 10,217,548 | 379,005 |
| Seines: | | | | | | |
| Alewives | | | | | 8,800 | 84 |
| Butterfish | | | | | 781 | 95 |
| Cod | | | | | 2,546 | 109 |
| Flounders | | | | | 20 | 1 |
| Haddock | | | | | 25 | 1 |
| Hake | | | | | 110 | 5 |
| Herring | 2,348,400 | 9,785 | | | 10,150,149 | 82,989 |
| Mackerel— | | | | | | |
| Fresh | | | | | 155,172 | 23,922 |
| Salted | | | | | 8,000 | 650 |
| Pollock | 215,000 | 2,960 | | | 1,448,827 | 25,288 |
| Salmon, Atlantic | | | | | 7 | 2 |
| Shad | | | | | 299,333 | 13,504 |
| Sharks | | | | | 5,585 | 151 |
| Smelt | | | | | 16,422 | 1,565 |
| Sturgeon | | | | | 202 | 15 |
| Whiting | | | | | 13,565 | 81 |
| Livers | | | | | 2,773 | 37 |
| Total | 2,563,400 | 12,745 | | | 12,112,317 | 148,499 |

YIELD OF VESSEL FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Washington. | | York. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Gill nets: | | | | | | |
| Catfish and wolffish | | | 79 | $2 | 1,057 | $35 |
| Cod— | | | | | | |
| Fresh | | | 165,130 | 7,100 | 719,883 | 30,105 |
| Salted | | | 4,360 | 327 | 4,360 | 327 |
| Cusk | | | 1,145 | 42 | 2,765 | 145 |
| Flounders | | | 271 | 7 | 2,961 | 67 |
| Haddock | | | 47,226 | 1,137 | 213,047 | 5,731 |
| Hake | | | 25,169 | 1,032 | 63,226 | 2,499 |
| Halibut | | | | | 18 | 2 |
| Mackerel | | | | | 58,615 | 7,511 |
| Pollock | | | 104,960 | 2,628 | 732,769 | 17,687 |
| Rosefish | | | | | 55 | 2 |
| Shad | | | 446 | 53 | 708 | 76 |
| Sharks | | | 690 | 21 | 4,840 | 122 |
| Skates | | | | | 55 | 2 |
| Sturgeon | | | | | 400 | 47 |
| Lobsters | | | | | 50 | 24 |
| Spawn | | | 318 | 17 | 1,428 | 51 |
| Livers | | | 950 | 12 | 6,856 | 118 |
| Total | | | 350,744 | 12,378 | 1,813,093 | 64,551 |
| Harpoons: Swordfish | | | 89,302 | 24,179 | 421,502 | 103,982 |
| Lobster pots: Lobsters | | | | | 62,970 | 15,783 |
| Dredges: Scallops | | | | | 12,968 | 5,349 |
| Grand total | 2,939,152 | $25,386 | 3,010,962 | 133,553 | 33,368,702 | 991,016 |

YIELD OF SHORE FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES.

| Apparatus and species. | Cumberland. | | Hancock. | | Kennebec. | | Knox. | |
|---|---|---|---|---|---|---|---|---|
| Pound nets, trap nets, and weirs: | | | | | | | | |
| Alewives— | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | 1,125 | $6 | 99,636 | $3,128 | | | | |
| Salted | | | 60 | 6 | | | | |
| Smoked | | | 34,373 | 2,577 | | | 55,670 | $3,340 |
| Bluefish | 39 | 7 | | | | | | |
| Bonito | 44 | 4 | | | | | | |
| Butterfish | 14,507 | 1,312 | | | | | | |
| Herring— | | | | | | | | |
| Fresh | 197,420 | 1,974 | 20,902,401 | 110,086 | | | 8,858,600 | 33,735 |
| Smoked | | | | | | | 23,000 | 1,790 |
| Mackerel | 113,686 | 17,927 | | | | | 9,121 | 1,187 |
| Pollock | 426,957 | 8,945 | 6,700 | 100 | | | | |
| Salmon, Atlantic | 954 | 87 | 7,050 | 2,795 | | | | |
| Shad | 9,302 | 650 | | | | | | |
| Sharks | 16,477 | 330 | | | | | | |
| Smelt | | | 1,600 | 405 | | | | |
| Sturgeon | 1,016 | 115 | | | | | | |
| Tautog | 14 | 2 | | | | | | |
| Tuna | 4,089 | 275 | | | | | | |
| Whiting— | | | | | | | | |
| Fresh | 608,470 | 4,000 | | | | | | |
| Salted | 3,000 | 90 | | | | | | |
| Squid | 377 | 4 | | | | | | |
| Total | 1,397,477 | 35,728 | 21,051,820 | 119,097 | | | 8,952,391 | 42,992 |
| Lines: | | | | | | | | |
| Catfish and wolffish | 29,829 | 587 | | | | | | |
| Cod— | | | | | | | | |
| Fresh | 1,276,020 | 54,905 | 1,979,108 | 52,206 | | | 856,078 | 21,853 |
| Salted | | | 3,959 | 300 | | | 2,000 | 300 |
| Cusk | 79,116 | 2,776 | 111,956 | 1,570 | | | 51,620 | 948 |
| Flounders | | | 7,800 | 404 | | | 5,000 | 100 |
| Haddock | 577,269 | 15,939 | 564,111 | 22,533 | | | 361,270 | 15,040 |
| Hake— | | | | | | | | |
| Fresh | 1,115,037 | 45,045 | 9,525,075 | 147,450 | | | 1,505,565 | 26,557 |
| Salted | | | 260 | 15 | | | 500 | 75 |
| Halibut | 3,844 | 663 | 17,380 | 2,966 | | | 22,275 | 1,522 |

YIELD OF SHORE FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Cumberland. | | Hancock. | | Kennebec. | | Knox. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Lines—Continued. | | | | | | | | |
| Pollock, fresh | 127,244 | $2,637 | 404,860 | $5,403 | | | 324,304 | $6,422 |
| Rosefish | 1,230 | 18 | | | | | | |
| Skates | 2,142 | 42 | | | | | | |
| Smelt | | | 73,650 | 13,250 | | | | |
| Sounds | 392 | 13 | | | | | 25,000 | 5,500 |
| Spawn | 2,196 | 66 | | | | | 4,200 | 42 |
| Livers | 43,127 | 433 | | | | | | |
| Total | 3,257,746 | 123,124 | 12,688,159 | 246,097 | | | 3,157,812 | 78,359 |
| Gill nets: | | | | | | | | |
| Alewives, smoked | | | | | | | | |
| Cod, fresh | 637,735 | 27,331 | 360,600 | 8,580 | | | 15,000 | 900 |
| Flounders | 2,000 | 90 | | | | | | |
| Haddock | 21,000 | 590 | | | | | | |
| Hake | | | 15,000 | 225 | | | | |
| Mackerel | 37,895 | 5,976 | | | | | | |
| Pollock | | | 10,000 | 125 | | | | |
| Shad | | | | | 7,280 | $1,365 | | |
| Sturgeon | | | 2,000 | 160 | | | | |
| Total | 698,630 | 33,987 | 387,600 | 9,090 | 7,280 | 1,365 | 15,000 | 900 |
| Seines: | | | | | | | | |
| Herring | 24,745 | 247 | 500,000 | 4,900 | | | | |
| Mackerel | | | 5,000 | 450 | | | | |
| Pollock | 518,197 | 10,831 | 69,000 | 1,030 | | | | |
| Shad | 3,100 | 216 | 10,000 | 700 | | | | |
| Smelt | 119,780 | 10,780 | 11,400 | 1,200 | | | 2,500 | 200 |
| Total | 665,822 | 22,074 | 595,400 | 8,280 | | | 63,600 | 10,150 |
| Bag nets and pocket nets: | | | | | | | 66,100 | 10,350 |
| Smelt | | | 8,785 | 1,615 | 1,350 | 340 | | |
| Tomcod | | | | | 26,500 | 795 | | |
| Total | | | 8,785 | 1,615 | 27,850 | 1,135 | | |
| Fyke nets: | | | | | | | | |
| Eels | | | | | 500 | 60 | | |
| Suckers | 3,000 | 240 | | | 55,300 | 6,540 | | |
| Tomcod | | | | | 38,675 | 1,160 | | |
| Total | 3,000 | 240 | | | 94,475 | 7,760 | | |
| Dip nets: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | | | 35,000 | 500 | | | 224,200 | 484 |
| Smoked | | | 5,600 | 500 | | | 38,950 | 1,947 |
| Smelt | | | | | | | 5,000 | 1,500 |
| Total | | | 40,600 | 1,000 | | | 268,150 | 3,931 |
| Eel pots, eel traps, and lobster pots: | | | | | | | | |
| Eels | | | 3,050 | 350 | 6,550 | 549 | 1,000 | 100 |
| Lobsters | 670,000 | 187,880 | 1,380,114 | 343,153 | | | 1,314,094 | 336,817 |
| Total | 670,000 | 187,880 | 1,383,164 | 343,503 | 6,550 | 549 | 1,315,094 | 336,917 |
| Otter trawls: | | | | | | | | |
| Flounders | 114,656 | 3,432 | 10,000 | 400 | | | 51,950 | 3,347 |
| Hake | | | | | | | 45,000 | 850 |
| Total | 114,656 | 3,432 | 10,000 | 400 | | | 96,950 | 4,179 |
| Crab traps and cunner traps: | | | | | | | | |
| Crabs, hard | 70,575 | 3,595 | | | | | | |
| Cunner | 30,695 | 615 | | | | | | |
| Total | 101,270 | 4,210 | | | | | | |
| Spears: Eels | | | 4,000 | 600 | | | | |
| Harpoons: | | | | | | | | |
| Swordfish | 2,511 | 552 | | | | | | |
| Tuna | 4,645 | 325 | | | | | | |
| Total | 7,156 | 877 | | | | | | |
| Hoes and forks: | | | | | | | | |
| Clams, soft | 442,659 | 48,131 | 636,135 | 42,416 | | | 162,070 | 10,376 |
| Mussels | | | | | | | 16,970 | 367 |
| Total | 442,659 | 48,131 | 636,135 | 42,416 | | | 179,040 | 10,743 |
| Dredges: Scallops | | | 30,860 | 14,200 | | | 28,744 | 11,867 |
| Grand total | 7,358,416 | 459,683 | 36,836,463 | 786,298 | 136,155 | 10,809 | 14,079,281 | 500,256 |

YIELD OF SHORE FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Lincoln. | | Penobscot. | | Sagadahoc. | | Waldo. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Pound nets, trapnets, and weirs: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | 9,600 | $103 | 9,000 | $150 | 2,500 | $50 | 7,000 | $190 |
| Smoked | 24,700 | 992 | | | 74,000 | 5,700 | | |
| Butterfish | 800 | 80 | | | 16,650 | 1,538 | | |
| Cod | | | | | 900 | 54 | 2,300 | 120 |
| Eels | | | | | 30,350 | 2,204 | | |
| Herring— | | | | | | | | |
| Fresh | 1,446,750 | 9,645 | | | 581,400 | 4,411 | 5,479,880 | 22,518 |
| Smoked | 120,000 | 4,290 | | | | | | |
| Mackerel | 11,242 | 1,431 | | | 72,143 | 8,801 | 8,707 | 1,354 |
| Pollock | | | | | 97,400 | 1,463 | 4,000 | 110 |
| Salmon, Atlantic | | | 70 | 30 | 4,812 | 1,745 | 3,857 | 1,845 |
| Shad | 5,168 | 909 | | | 21,910 | 3,297 | 3,121 | 220 |
| Smelt | 850 | 170 | | | 4,935 | 1,234 | | |
| Striped bass | | | | | 535 | 101 | 57 | 12 |
| Sturgeon | | | | | 585 | 189 | | |
| Sturgeon roe | | | | | 30 | 90 | | |
| Suckers | 4,000 | 160 | | | | | | |
| Tomcod | 500 | 15 | | | | | | |
| Whiting, fresh | | | | | 59,600 | 596 | | |
| Total | 1,623,610 | 17,705 | 9,070 | 180 | 967,750 | 31,473 | 5,508,922 | 26,369 |
| Lines: | | | | | | | | |
| Cod, fresh | 353,336 | 12,361 | | | 225,378 | 10,973 | 12,000 | 480 |
| Cusk | 23,664 | 827 | | | 14,720 | 587 | | |
| Haddock | 84,692 | 2,813 | | | 31,042 | 1,147 | 2,000 | 80 |
| Hake, fresh | 400,314 | 7,777 | | | 141,390 | 6,365 | 4,300 | 130 |
| Halibut | 800 | 120 | | | 11,040 | 1,750 | | |
| Pollock, fresh | 171,646 | 3,767 | | | 12,250 | 310 | | |
| Salmon, Atlantic | | | 630 | 269 | | | | |
| Smelt | 16,600 | 4,150 | | | 51,125 | 12,784 | | |
| Total | 1,054,352 | 31,815 | 630 | 269 | 486,945 | 33,916 | 18,300 | 690 |
| Gill nets: | | | | | | | | |
| Alewives, fresh | | | 10,000 | 250 | 700 | 35 | | |
| Cod— | | | | | | | | |
| Fresh | 374,779 | 11,071 | | | 104,450 | 5,052 | | |
| Salted | 3,000 | 180 | | | | | | |
| Cusk | 6,371 | 116 | | | | | | |
| Haddock | 84,687 | 2,259 | | | 1,340 | 40 | | |
| Hake | 419,304 | 5,909 | | | 5,750 | 175 | | |
| Mackerel | 3,500 | 426 | | | | | | |
| Pollock | 150,582 | 2,556 | | | | | | |
| Salmon, Atlantic | | | 1,950 | 832 | | | | |
| Shad | 28,880 | 3,625 | 13 | 8 | 17,140 | 3,033 | | |
| Sharks | 9,000 | 180 | | | | | | |
| Smelt | | | 300 | 75 | 150 | 38 | | |
| Sturgeon | 900 | 180 | | | 2,192 | 797 | | |
| Sturgeon roe | | | | | 113 | 207 | | |
| Total | 1,081,003 | 26,502 | 12,263 | 1,165 | 131,835 | 9,377 | | |
| Seines: | | | | | | | | |
| Herring | 900,000 | 6,250 | | | 60,000 | 600 | | |
| Mackerel | 57,425 | 7,163 | | | | | | |
| Pollock | 55,000 | 1,075 | | | | | | |
| Shad | 2,000 | 200 | | | | | | |
| Smelt | 19,950 | 4,850 | | | 5,400 | 1,350 | | |
| Sturgeon | 50 | 4 | | | | | | |
| Total | 1,034,425 | 19,542 | | | 65,400 | 1,950 | | |
| Bag nets and pocket nets: | | | | | | | | |
| Smelt | 16,100 | 4,072 | 1,600 | 400 | 8,500 | 2,375 | 23,450 | 5,862 |
| Tomcod | 30,000 | 900 | 24,000 | 600 | | | 15,000 | 375 |
| Total | 46,100 | 4,972 | 25,600 | 1,000 | 8,500 | 2,375 | 38,450 | 6,237 |
| Fyke nets: | | | | | | | | |
| Eels | | | | | 750 | 75 | | |
| Smelt | | | | | 4,120 | 1,030 | | |
| Suckers | 36,500 | 3,650 | | | 11,600 | 1,262 | | |
| Tomcod | 6,660 | 201 | | | | | | |
| Total | 43,160 | 3,851 | | | 16,470 | 2,367 | | |

YIELD OF SHORE FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Lincoln. | | Penobscot. | | Sagadahoc. | | Waldo. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Dip nets: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | 25,600 | $154 | | | | | | |
| Salted | 6,800 | 170 | | | | | | |
| Smoked | 80,000 | 2,400 | | | | | | |
| Total | 112,400 | 2,724 | | | | | | |
| Eel pots, eel traps, and lobster pots: | | | | | | | | |
| Eels | 34,500 | 2,660 | 24,000 | $2,400 | 144,550 | $10,246 | 8,000 | $800 |
| Lobsters | 619,886 | 152,327 | | | 147,664 | 39,739 | 8,800 | 640 |
| Total | 654,386 | 154,987 | 24,000 | 2,400 | 292,214 | 49,985 | 16,800 | 1,440 |
| Otter trawls: | | | | | | | | |
| Flounders | 43,585 | 3,486 | | | 39,950 | 3,196 | | |
| Hake | 120,000 | 2,100 | | | 162,800 | 5,698 | | |
| Total | 163,585 | 5,586 | | | 202,750 | 8,894 | | |
| Spears: Eels | 17,500 | 1,400 | | | | | | |
| Harpoons: Tuna | 17,300 | 1,088 | | | 5,875 | 352 | | |
| Hoes and forks: Clams, soft | 192,600 | 15,252 | | | 7,860 | 899 | | |
| Grand total | 6,040,421 | 285,424 | 71,563 | 5,014 | 2,185,599 | 141,588 | 5,582,472 | 34,736 |

| Apparatus and species. | Washington. | | York. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Pound nets, trap nets, and weirs: | | | | | | |
| Alewives— | | | | | | |
| Fresh | 85,750 | $1,421 | | | 214,611 | $5,948 |
| Salted | | | | | 60 | 6 |
| Smoked | 4,000 | 300 | | | 192,743 | 12,909 |
| Bluefish | | | | | 39 | 7 |
| Bonito | | | | | 44 | 4 |
| Butterfish | | | | | 31,957 | 2,930 |
| Cod | 2,000 | 57 | | | 5,200 | 231 |
| Eels | 2,000 | 130 | | | 32,350 | 2,354 |
| Flounders | 2,500 | 250 | | | 2,500 | 250 |
| Herring— | | | | | | |
| Fresh | 36,415,781 | 170,213 | | | 73,882,232 | 355,612 |
| Salted | 200 | 12 | | | 200 | 12 |
| Smoked | 12,550 | 815 | | | 161,550 | 6,715 |
| Mackerel | | | | | 214,899 | 30,700 |
| Pollock | 184,900 | 3,610 | | | 719,957 | 14,228 |
| Salmon— | | | | | | |
| Atlantic | 645 | 126 | | | 17,388 | 6,628 |
| Humpback | 310 | 62 | | | 310 | 62 |
| Shad | | | | | 39,501 | 5,076 |
| Sharks | | | | | 16,477 | 330 |
| Smelt | 6,245 | 1,536 | | | 13,630 | 3,345 |
| Striped bass | | | | | 592 | 113 |
| Sturgeon | | | | | 1,601 | 304 |
| Sturgeon roe | | | | | 30 | 90 |
| Suckers | | | | | 4,000 | 160 |
| Tautog | | | | | 11 | 2 |
| Tomcod | | | | | 500 | 15 |
| Tuna | | | | | 4,089 | 275 |
| Whiting— | | | | | | |
| Fresh | 3,325 | 50 | | | 671,405 | 4,646 |
| Salted | | | | | 3,000 | 90 |
| Squid | | | | | 377 | 4 |
| Total | 36,720,216 | 178,602 | | | 76,231,256 | 452,146 |
| Lines: | | | | | | |
| Catfish and wolffish | | | | | 29,829 | 587 |
| Cod— | | | | | | |
| Fresh | 932,352 | 28,600 | 260,500 | $14,717 | 5,894,772 | 196,095 |
| Salted | 16,425 | 1,385 | 2,000 | 100 | 24,384 | 2,085 |
| Cusk | 4,009 | 78 | 9,000 | 340 | 297,085 | 7,126 |
| Eels | | | 2,000 | 280 | 2,000 | 280 |
| Flounders | | | 45,400 | 1,816 | 58,200 | 2,320 |
| Haddock | 124,610 | 4,834 | 141,400 | 9,911 | 1,886,394 | 72,297 |

YIELD OF SHORE FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Washington. | | York. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Lines—Continued. | | | | | | |
| Hake— | | | | | | |
| Fresh | 122,635 | $2,211 | 67,475 | $2,881 | 12,882,091 | $238,416 |
| Salted | 4,300 | 166 | | | 5,060 | 256 |
| Halibut | 38,165 | 4,437 | 3,050 | 561 | 96,554 | 12,019 |
| Pollock— | | | | | | |
| Fresh | 196,150 | 5,386 | 82,500 | 3,416 | 1,318,954 | 27,341 |
| Salted | 25,100 | 2,095 | 2,000 | 100 | 27,100 | 2,195 |
| Rosefish | | | | | 1,230 | 18 |
| Salmon, Atlantic | | | | | 630 | 269 |
| Sharks | | | 1,000 | 30 | 1,000 | 30 |
| Skates | | | | | 2,142 | 42 |
| Smelt | | | | | 166,375 | 35,684 |
| Tongues and cheeks | 200 | 40 | 5,000 | 150 | 5,200 | 190 |
| Sounds | 200 | 40 | | | 5,092 | 95 |
| Spawn | | | | | 2,196 | 66 |
| Livers | 17,000 | 390 | | | 60,127 | 823 |
| Oil | 3,750 | 375 | 4,875 | 520 | 8,625 | 895 |
| Total | 1,484,896 | 50,037 | 626,200 | 34,822 | 22,775,040 | 599,129 |
| Gill nets: | | | | | | |
| Alewives— | | | | | | |
| Fresh | | | | | 10,700 | 285 |
| Smoked | | | | | 15,000 | 900 |
| Catfish and wolffish | | | 100 | 1 | 100 | 1 |
| Cod— | | | | | | |
| Fresh | | | 44,554 | 2,102 | 1,522,118 | 54,136 |
| Salted | | | | | 3,000 | 180 |
| Cusk | | | 64 | 1 | 6,435 | 117 |
| Flounders | | | 240 | 4 | 2,240 | 94 |
| Haddock | | | 18,196 | 674 | 125,223 | 3,563 |
| Hake | | | | | 440,054 | 6,309 |
| Herring— | | | | | | |
| Fresh | 3,000 | 40 | | | 3,000 | 40 |
| Salted | 6,000 | 175 | | | 6,000 | 175 |
| Mackerel | | | 9,000 | 1,080 | 50,395 | 7,482 |
| Pollock | | | 32,600 | 947 | 193,182 | 3,628 |
| Salmon, Atlantic | 500 | 150 | | | 2,450 | 982 |
| Shad | 4,000 | 390 | | | 57,313 | 8,421 |
| Sharks | | | | | 9,000 | 180 |
| Smelt | 18,350 | 4,045 | | | 18,800 | 4,158 |
| Sturgeon | | | | | 5,092 | 1,137 |
| Sturgeon roe | | | | | 113 | 207 |
| Total | 31,850 | 4,800 | 104,754 | 4,809 | 2,470,215 | 91,995 |
| Seines: | | | | | | |
| Flounders | | | 10,000 | 500 | 10,000 | 500 |
| Herring | 1,020,000 | 4,250 | | | 2,504,745 | 16,247 |
| Mackerel | | | 52,000 | 4,200 | 114,425 | 11,813 |
| Pollock | | | | | 642,197 | 12,936 |
| Shad | | | | | 17,600 | 1,316 |
| Smelt | 700 | 110 | 4,000 | 775 | 224,830 | 29,215 |
| Sturgeon | | | | | 50 | 4 |
| Total | 1,020,700 | 4,360 | 66,000 | 5,475 | 3,513,847 | 72,031 |
| Bag nets and pocket nets: | | | | | | |
| Smelt | 11,005 | 2,535 | | | 70,790 | 17,199 |
| Tomcod | 5,825 | 465 | | | 101,325 | 3,135 |
| Total | 16,830 | 3,000 | | | 172,115 | 20,334 |
| Fyke nets: | | | | | | |
| Eels | | | | | 1,250 | 135 |
| Smelt | | | | | 4,120 | 1,030 |
| Suckers | | | | | 106,400 | 11,692 |
| Tomcod | | | | | 45,335 | 1,361 |
| Total | | | | | 157,105 | 14,218 |
| Dip nets: | | | | | | |
| Alewives— | | | | | | |
| Fresh | 61,900 | 900 | | | 346,700 | 2,038 |
| Salted | | | | | 6,800 | 170 |
| Smoked | 20,000 | 950 | | | 144,550 | 5,797 |
| Herring | 106,000 | 716 | | | 106,000 | 716 |
| Salmon, Atlantic | 135 | 45 | | | 135 | 45 |
| Smelt | | | 4,000 | 800 | 9,000 | 2,300 |
| Total | 188,035 | 2,611 | 4,000 | 800 | 613,185 | 11,066 |

YIELD OF SHORE FISHERIES OF MAINE IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Washington. | | York. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Eel pots, eel traps, and lobster pots: | | | | | | |
| Eels | 16,300 | $1,975 | 10,000 | $1,400 | 247,950 | $20,480 |
| Lobsters | 849,306 | 206,425 | 493,000 | 128,760 | 5,482,864 | 1,395,741 |
| Total | 865,606 | 208,400 | 503,000 | 130,160 | 5,730,814 | 1,416,221 |
| Otter trawls: | | | | | | |
| Flounders | | | | | 260,141 | 13,861 |
| Hake | | | | | 327,800 | 8,648 |
| Total | | | | | 587,941 | 22,509 |
| Crab traps and cunner traps: | | | | | | |
| Crabs, hard | | | | | 70,575 | 3,595 |
| Cunner | | | | | 30,695 | 615 |
| Total | | | | | 101,270 | 4,210 |
| Spears: Eels | | | | | 21,500 | 2,000 |
| Harpoons: | | | | | | |
| Swordfish | | | 800 | 200 | 3,311 | 752 |
| Tuna | | | | | 27,820 | 1,765 |
| Total | | | 800 | 200 | 31,131 | 2,517 |
| Hoes and forks: | | | | | | |
| Clams, soft | 651,910 | 43,365 | 12,500 | 2,770 | 2,105,734 | 163,209 |
| Mussels | | | | | 16,970 | 367 |
| Total | 651,910 | 43,365 | 12,500 | 2,770 | 2,122,704 | 163,576 |
| Dredges: Scallops | | | | | 59,544 | 26,067 |
| Grand total | 40,980,043 | 495,175 | 1,317,254 | 179,036 | 114,587,667 | 2,898,019 |

SALMON FISHERY OF PENOBSCOT RIVER AND BAY.

The greater part of the catch of Atlantic salmon in Maine is usually taken in Penobscot River and Bay. In 1920, the latest year for which statistics are available, there were 128 persons engaged in the salmon fishery in these waters. The investment included 68 weirs and traps, valued at $6,175; 15 gill nets, valued at $240; rods and lines to the value of $1,500; 7 gasoline boats, valued at $700; 85 rowboats, etc., valued at $2,845; and shore and accessory property, valued at $1,365; a total of $12,825. The catch amounted to 1,598 salmon in number, or 15,135 pounds, having a value to the fishermen of $7,210. The catch in 1919 was 1,322 salmon in number, or 13,557 pounds, valued at $5,771. The following tables give the extent of this fishery by localities, in 1918, 1919, and 1920, and comparative statistics of the catch for various years from 1895 to 1920:

EXTENT, BY LOCALITIES, OF THE SALMON FISHERY OF PENOBSCOT RIVER AND BAY IN 1918, 1919, AND 1920.

| Town. | Weirs and traps. | | | | | | Gill nets. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1918 | | 1919 | | 1920 | | 1918 | | 1919 | | 1920 | |
| | *No.* | *Value.* | *No.* | *Value.* | *No.* | *Value.* | *No.* | *Value.* | *No.* | *Value.* | *No.* | *Value.* |
| Bucksport | 1 | $50 | 2 | $125 | 2 | $125 | | | | | | |
| Orland | 15 | 750 | 16 | 800 | 18 | 900 | | | | | | |
| Penobscot | 4 | 325 | 7 | 550 | 7 | 525 | | | | | | |
| Verona | 21 | 2,500 | 21 | 2,750 | 21 | 2,750 | | | | | | |
| Bangor and Brewer | | | | | | | 8 | $80 | 8 | $100 | 8 | $100 |
| Hampden | 1 | 100 | 1 | 100 | 1 | 100 | 3 | 60 | 2 | 40 | 1 | 20 |
| Orrington | | | | | | | 6 | 120 | 6 | 120 | 6 | 120 |
| South Orrington | 2 | 255 | | | | | | | | | | |
| Lincolnville | 11 | 940 | 11 | 940 | 11 | 940 | | | | | | |
| Sandy Point | 4 | 475 | 4 | 475 | 4 | 475 | | | | | | |
| Winterport | 3 | 300 | 3 | 300 | 4 | 360 | | | | | | |
| Total | 62 | 5,695 | 65 | 6,040 | 68 | 6,175 | 17 | 260 | 16 | 260 | 15 | 240 |

EXTENT, BY LOCALITIES, OF THE SALMON FISHERY OF PENOBSCOT RIVER AND BAY IN 1918, 1919, AND 1920—Continued.

| Town. | Rods and lines. | | | Gasoline boats. | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1918 | 1919 | 1920 | 1918 | | 1919 | | 1920 | |
| | *Value.* | *Value.* | *Value.* | *No.* | *Value.* | *No.* | *Value.* | *No.* | *Value.* |
| Orland | | | | 2 | $150 | 2 | $150 | 2 | $150 |
| Verona | | | | 2 | 175 | 2 | 175 | 2 | 175 |
| Bangor and Brewer | $900 | $1,200 | $1,500 | | | | | | |
| Hampden | | | | 2 | 300 | 2 | 300 | 1 | 100 |
| South Orrington | | | | 1 | 100 | | | | |
| Lincolnville | | | | 1 | 150 | 1 | 150 | 1 | 150 |
| Sandy Point | | | | 1 | 125 | 1 | 125 | 1 | 125 |
| Winterport | | | | 1 | 100 | 1 | 100 | | |
| Total | 900 | 1,200 | 1,500 | 10 | 1,100 | 9 | 1,000 | 7 | 700 |

| Town. | Rowboats, etc. | | | | | | Shore and accessory property. | | | Total investment. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1918 | | 1919 | | 1920 | | 1918 | 1919 | 1920 | 1918 | 1919 | 1920 |
| | *No.* | *Value.* | *No.* | *Value.* | *No.* | *Value.* | | | | | | |
| Bucksport | 2 | $35 | 4 | $70 | 4 | $70 | $10 | $20 | $25 | $95 | $215 | $220 |
| Orland | 19 | 385 | 19 | 385 | 20 | 400 | 150 | 150 | 150 | 1,435 | 1,485 | 1,600 |
| Penobscot | 6 | 85 | 8 | 115 | 8 | 115 | 40 | 55 | 60 | 450 | 720 | 700 |
| Verona | 20 | 440 | 20 | 440 | 20 | 440 | 175 | 150 | 150 | 3,290 | 3,515 | 3,515 |
| Bangor and Brewer | 23 | 1,060 | 23 | 1,060 | 23 | 1,060 | | | | 2,040 | 2,360 | 2,660 |
| Hampden | 3 | 105 | 3 | 105 | 3 | 105 | 550 | 550 | 550 | 1,115 | 1,095 | 875 |
| Orrington | 6 | 180 | 6 | 180 | 6 | 180 | | | | 300 | 300 | 300 |
| South Orrington | 4 | 130 | | | | | 50 | | | 535 | | |
| Lincolnville | 7 | 340 | 7 | 340 | 7 | 340 | 150 | 150 | 150 | 1,580 | 1,580 | 1,580 |
| Sandy Point | 4 | 140 | 4 | 140 | 3 | 110 | 90 | 90 | 90 | 830 | 830 | 800 |
| Winterport | 4 | 140 | 4 | 140 | 1 | 25 | 190 | 190 | 190 | 730 | 730 | 575 |
| Total | 98 | 3,040 | 98 | 2,975 | 85 | 2,845 | 1,405 | 1,355 | 1,365 | 12,400 | 12,830 | 12,825 |

| Town. | Persons engaged. | | | Catch of salmon.[1] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1918 | 1919 | 1920 | 1918 | | | 1919 | | | 1920 | | |
| | | | | *No.* | *Lbs.* | *Value.* | *No.* | *Lbs.* | *Value.* | *No.* | *Lbs.* | *Value.* |
| Bucksport | 1 | 3 | 3 | 30 | 300 | $105 | 48 | 480 | $192 | 23 | 207 | $98 |
| Orland | 13 | 14 | 16 | 56 | 560 | 191 | 55 | 550 | 225 | 94 | 846 | 372 |
| Penobscot | 3 | 4 | 4 | 240 | 2,400 | 807 | 181 | 1,810 | 773 | 259 | 2,331 | 1,127 |
| Verona | 11 | 11 | 11 | 609 | 6,090 | 2,188 | 421 | 4,210 | 1,605 | 636 | 5,724 | 2,465 |
| Bangor and Brewer | 31 | 31 | 31 | 115 | 1,380 | 307 | 133 | 1,330 | 568 | 140 | 1,540 | 832 |
| Hampden | 4 | 4 | 3 | 17 | 180 | 103 | 12 | 120 | 52 | 20 | 205 | 111 |
| Orrington | 12 | 12 | 12 | 80 | 880 | 91 | 120 | 1,200 | 511 | 45 | 495 | 266 |
| South Orrington | 2 | | | 70 | 770 | 188 | | | | | | |
| Lincolnville | 6 | 6 | 6 | 148 | 1,480 | 544 | 105 | 1,050 | 525 | 124 | 1,116 | 558 |
| Sandy Point | 3 | 3 | 3 | 99 | 1,089 | 378 | 85 | 1,020 | 500 | 104 | 1,054 | 524 |
| Searsport | | | | | | | 10 | 100 | 50 | 21 | 189 | 95 |
| Stockton Springs | | | | 103 | 1,133 | 395 | 61 | 732 | 364 | 26 | 260 | 140 |
| Winterport | 3 | 3 | 4 | 86 | 950 | 203 | 91 | 955 | 406 | 106 | 1,168 | 622 |
| Total | 124 | 126 | 128 | 1,653 | 17,212 | 5,500 | 1,322 | 13,557 | 5,771 | 1,598 | 15,135 | 7,210 |

[1] The salmon credited to Orland in 1918, 1919, and 1920, and to Searsport in 1919 and 1920 were taken incidentally with apparatus fished for other species.

CATCH OF SALMON IN PENOBSCOT RIVER AND BAY FOR VARIOUS YEARS.

| Year. | Number. | Pounds. | Value. | Year. | Number. | Pounds. | Value. |
|---|---|---|---|---|---|---|---|
| 1895 | 4,395 | 65,011 | $11,356 | 1902 | 3,269 | 45,782 | $9,950 |
| 1896 | 6,403 | 80,225 | 12,716 | 1903 | 4,859 | 67,470 | 14,935 |
| 1897 | 3,985 | 51,522 | 7,911 | 1904 | 4,776 | 63,395 | 14,451 |
| 1898 | 3,225 | 42,560 | 8,342 | 1905 | 6,378 | 74,158 | 17,503 |
| 1899 | 3,515 | 45,688 | 10,424 | 1918 | 1,653 | 17,212 | 5,500 |
| 1900 | 3,541 | 44,660 | 7,832 | 1919 | 1,322 | 13,557 | 5,771 |
| 1901 | 6,821 | 86,055 | 12,263 | 1920 | 1,598 | 15,135 | 7,210 |

### HUMPBACK SALMON.

In recent years humpback or pink salmon from the Pacific coast have been planted by the Bureau in the Dennys, Pembroke, St. Croix, Penobscot, and other rivers in Maine, beginning with the year 1906, and runs of adult fish have appeared during a number of years. The fish occurred in greatest abundance in the early autumn of 1919, when there were large runs in Dennys and Pembroke Rivers, and smaller runs in various other rivers. In July, 1919, a weir fisherman of Perry caught 17 humpback salmon in Little River and sold about 12 fish at $1 each. They averaged from 4 to 6 pounds in weight. The total catch marketed in 1919 was 310 pounds, valued at $62. Many were taken and released and probably a considerable number were consumed locally. There seems to be no doubt that this species, if properly protected, can maintain itself in certain New England rivers and become a valuable addition to the local fish supply.

### INDUSTRIES.

*Wholesale fishery trade.*—In 1919, including one plant engaged solely in the production of liver oil, 99 firms engaged in the wholesale trade in fresh and salted fishery products, valued at $1,722,094, using cash capital to the amount of $274,550 and giving employment to 872 persons, to whom $616,858 were paid in wages. As the preparation of by-products is for the most part conducted incidentally to activities in the wholesale trade, the canning and smoked fish industries, the prepared products have been listed under the respective industries. The following table gives the extent of the wholesale trade in fresh and salted fishery products of Maine in 1919:

WHOLESALE TRADE IN FRESH AND SALTED FISHERY PRODUCTS, BY COUNTIES.

| Item. | Cumberland. | | Hancock. | | Knox and Waldo. | |
|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | 17 | $346,928 | 35 | $164,250 | 19 | $1,058,906 |
| Cash capital | ..... | 38,500 | ..... | 49,000 | ..... | 147,550 |
| Persons engaged | 149 | ..... | 144 | ..... | 445 | ..... |
| Wages paid | ..... | 124,393 | ..... | 51,105 | ..... | 398,993 |
| Products: | | | | | | |
| Liver oil ..... gallons | 44,561 | 58,089 | 28,750 | 27,280 | 11,893 | 10,517 |
| Other products | ..... | ..... | ..... | ..... | ..... | 44,587 |
| Total | ..... | 58,089 | ..... | 27,280 | ..... | 55,104 |

| Item. | Lincoln, Penobscot, and York. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | 9 | $96,160 | 19 | $55,850 | [1] 99 | $1,722,094 |
| Cash capital | ..... | 17,100 | ..... | 22,400 | ..... | 274,550 |
| Persons engaged | 43 | ..... | 91 | ..... | 872 | ..... |
| Wages paid | ..... | 23,638 | ..... | 18,729 | ..... | 616,858 |
| Products: | | | | | | |
| Liver oil ..... gallons | 5,450 | 4,596 | ..... | ..... | 90,654 | 100,482 |
| Other products | ..... | ..... | ..... | ..... | ..... | 44,587 |
| Total | ..... | 4,596 | ..... | ..... | ..... | 145,069 |

[1] Includes one plant engaged solely in production of liver oil.

*Smoked-fish industry.*—In 1919 there were 50 firms engaged primarily in smoking fishery products in Maine. These plants utilized 23,142,814 pounds of fishery products, valued at $359,750.

The prepared products amounted to 4,415,582 pounds, valued at $626,835. The most important items were: Boneless smoked herring, 1,729,219 pounds, valued at $256,740; whole smoked herring, 1,141,278 pounds, valued at $102,334; and finnan haddie, 785,333 pounds, valued at $95,480. The value of the secondary products was $73,687, which included 730 tons of fish scrap, valued at $38,500; 1,271,424 pounds of pomace, valued at $16,411; and 28,044 gallons of herring oil and liver oil, valued at $18,664.

SMOKED-FISH INDUSTRY OF MAINE IN 1919.

| Item. | Number. | Value. |
|---|---|---|
| Plants | [1] 50 | $716,589 |
| Cost of materials | | 109,577 |
| Cash capital | | 131,700 |
| Persons engaged | 707 | |
| Wages paid | | 260,179 |
| PRODUCTS. | | |
| Utilized: | | |
| Alewives.....pounds | 650 | 26 |
| Cod, salted, dried.do | 569,055 | 60,970 |
| Haddock.....do | 8,122,798 | 192,485 |
| Herring— | | |
| Fresh.....do | 9,575,127 | 69,629 |
| Smoked [2].....do | 247,000 | 12,712 |
| Fish skins, waste, etc., pounds | 3,228,184 | 10,928 |
| Pomace.....pounds | 1,400,000 | 13,000 |
| Total | 23,142,814 | 359,750 |
| Prepared: | | |
| Smoked alewives, pounds | 335 | 60 |
| Finnan haddie, pounds | [3] 785,333 | 95,480 |
| PRODUCTS—continued. | | |
| Prepared—Continued. | | |
| Kippered herring, pounds | [4] 156,500 | $15,845 |
| Smoked herring— | | |
| Bloaters...pounds | 327,330 | 20,629 |
| Lengthwise..do | 37,053 | 2,511 |
| Medium scale, pounds | 238,534 | 13,036 |
| Boneless..pounds | 1,729,219 | 256,740 |
| Whole.....do | 1,141,278 | 102,334 |
| Other products | | [5] 120,200 |
| Total | 4,415,582 | 626,835 |
| Secondary: | | |
| Oil— | | |
| Herring....gallons | 23,171 | 14,086 |
| Liver.....do | 4,873 | 4,578 |
| Pomace.....pounds | 1,271,424 | 16,411 |
| Fish scrap.....do | 1,460,000 | 38,500 |
| Other products | | 112 |
| Total | | 73,687 |

[1] Includes one firm in Cumberland County and three in Washington County also engaged in making herring oil, pomace, and fish scrap.
[2] All smoked herring under products utilized were imported from Canada and used for preparing boneless herring.
[3] Includes the output of one plant in Penobscot County and two in Cumberland County listed with canners.
[4] Includes the output of one plant in Penobscot County listed with canners.
[5] Includes the value of herring pickled by one firm in Washington County.

*Canning industry.*—The canning industry of Maine is of growing importance, the chief products packed being sardines, finnan haddie, and clams. In 1919, 77 plants were operated, representing a value of $4,315,878 and employing cash or working capital to the amount of $625,257. The cost of materials amounted to $4,768,040; the number of persons employed was 6,116, to whom $1,795,506 were paid in wages; and the value of the products utilized was $1,145,614, of which the most important were: Herring, 128,163,663 pounds, valued at $875,627; haddock, 6,983,629 pounds, valued at $149,496; and soft clams, 1,801,070 pounds, valued at $119,083. It is of interest to note that 19,670 bushels of mussels were utilized, and it is believed that the work of the Bureau in encouraging the use of this product has aided in the development of this fishery. The manufactured products included 2,774,656 cases of canned products, valued at $13,086,886, and secondary products such as scrap, meal, and oil to the value of $82,328. The canned products included 2,450,268 cases of sardines, valued at $11,933,986; 228,127 cases of finnan haddie, valued at $603,696, and 85,426 cases of clam products, valued at $439,221.

The clam pack represents the output of nine firms in Washington County, five in Cumberland County, nine in Hancock County, four in Knox County, two in Lincoln County, one in Penobscot County, and one in York County. Of these firms, seven also canned sardines, one mussels, and three smoked fish. As it has been found impracticable to show the pack of clams by grades and counties without disclosing private enterprise, the pack in detailed form has been omitted from the appended table. The pack was made up of the following items: 259 cases of clams in 4-ounce containers, valued at $1,471; 24,935 cases of 5-ounce cans, valued at $113,373; 2,954 cases of 6-ounce cans, valued at $10,930; 6,641 cases of 8-ounce cans, valued at $49,847; 679 cases of 8½-ounce cans, valued at $3,058; 4,406 cases of 10-ounce cans, valued at $20,730; 200 cases of 11-ounce cans, valued at $760; 19,234 cases of 1-pound cans, valued at $115,068; 4,199 cases of 2-pound cans, valued at $25,194; 1,327 cases of No. 3 cans, valued at $6,348; 74 cases of clam juice in 5-ounce cans, valued at $222; 3,843 cases of clam juice in 10-ounce cans, valued at $4,903; 16 cases in No. 1 cans, valued at $48; 503 cases in No. 10 cans, valued at $946; and 16,156 cases of clam chowder and bouillon in containers of various sizes, valued at $86,323.

CANNING INDUSTRY OF MAINE IN 1919, BY COUNTIES.

| Item. | Cumberland. | | Hancock. | | Knox and Waldo. | |
|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | 9 | $591,262 | 17 | $469,590 | 8 | $240,537 |
| Cost of materials | | 394,446 | | 756,025 | | 194,373 |
| Cash capital | | 337,107 | | 57,550 | | 55,070 |
| Persons engaged | 569 | | 958 | | 377 | |
| Wages paid | | 179,780 | | 317,380 | | 111,347 |
| PRODUCTS. | | | | | | |
| Utilized: | | | | | | |
| Cod ... pounds | | | 4,320 | 86 | | |
| Haddock ... do | 6,983,629 | 149,496 | | | | |
| Herring ... do | 3,452,898 | 35,572 | 21,325,259 | 152,271 | 5,424,020 | 30,945 |
| Clams, soft ... do | 48,930 | 3,444 | 637,770 | 37,984 | 184,910 | 11,907 |
| Clams, soft, steamed ... do | | | [1] 67,300 | 9,189 | | |
| Mussels ... bushels | | | | | 19,670 | 367 |
| Canned: [2] | | | | | | |
| Sardines— | | | | | | |
| In oil—Quarters ... cases | 57,071 | 452,237 | 314,909 | 1,754,761 | 71,769 | 369,714 |
| In mustard— | | | | | | |
| Quarters ... do | 1,340 | 6,164 | 9,434 | 43,559 | 1,406 | 6,467 |
| Halves ... do | | | 7,862 | 66,000 | | |
| Three-quarters ... do | 12,531 | 52,477 | 47,882 | 258,025 | 8,871 | 39,357 |
| In tomato sauce— | | | | | | |
| Quarters ... do | 1,225 | 7,446 | 11,458 | 60,962 | 1,302 | 6,704 |
| Halves ... do | 1,071 | 10,280 | | | 2,816 | 28,732 |
| 1 pound ... do | 811 | 9,732 | | | 26 | 312 |
| Plain—Halves ... do | 356 | 2,631 | | | | |
| Finnan haddie— | | | | | | |
| 6½-ounce ... do | 197,546 | 486,134 | | | | |
| 8-ounce ... do | 25 | 325 | | | | |
| 10½-ounce ... do | 29,378 | 111,638 | | | | |
| 1 pound ... do | 1,178 | 5,599 | | | | |
| Total | 302,532 | 1,144,663 | 391,545 | 2,183,307 | 86,190 | 451,286 |
| Secondary: Fish scrap and meal, pounds | | | | | 356,200 | 14,886 |
| Grand total | | 1,144,663 | | 2,183,307 | | 466,172 |

[1] Steamed by the fishermen.

[2] Sardine quarters are packed 100 cans to the case and other sardines usually 48 cans to the case, except half-pound ovals, which sometimes contain 72 cans per case. The number of cans per case of canned clams vary as follows: The 6-oz., 8½-oz., 10-oz., 11-oz, 2-lb., and No. 3 average 2 dozen per case, while the 4-oz., 5-oz., 8-oz., and 1-lb. average 4 dozen per case. The clam juice, 5-oz., 10-oz., and No. 1 cans, average 2 dozen per case, and the No. 10 are packed one-half dozen to the case. The one-half pound kippered herring are packed 8 dozen to the case, and the 1-lb. cans are packed 4 and 6 dozen to the case.

CANNING INDUSTRY OF MAINE IN 1919, BY COUNTIES—Continued.

| Item. | Lincoln, Penobscot, and York. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | 4 | $84,023 | [1] 39 | $2,930,466 | 77 | $4,315,878 |
| Cost of materials | | 15,873 | | 3,407,323 | | 4,768,040 |
| Cash capital | | 21,430 | | 154,100 | | 625,257 |
| Persons engaged | 106 | | 4,106 | | 6,116 | |
| Wages paid | | 18,213 | | 1,168,786 | | 1,795,506 |
| PRODUCTS. | | | | | | |
| Utilized: | | | | | | |
| Cod ... pounds | | | 36,016 | 955 | 40,336 | 1,041 |
| Haddock ... do | | | | | 6,983,629 | 149,496 |
| Herring ... do | 101,553 | 1,800 | 97,859,933 | 655,039 | 128,163,663 | 875,627 |
| Clams, soft ... do | 134,190 | 9,582 | 727,970 | 46,977 | 1,733,770 | 109,894 |
| Clams, soft, steamed ... do | | | | | 67,300 | 9,189 |
| Mussels ... bushels | | | | | 19,670 | 367 |
| Canned: [2] | | | | | | |
| Sardines— | | | | | | |
| In oil— | | | | | | |
| Quarters ... cases | | | 1,458,681 | 6,750,953 | 1,902,430 | 9,327,665 |
| Halves ... do | | | 878 | 11,500 | 878 | 11,500 |
| In mustard— | | | | | | |
| Quarters ... do | | | 115,484 | 546,607 | 127,664 | 602,797 |
| Halves ... do | | | | | 7,862 | 66,000 |
| Three-quarters ... do | | | 242,363 | 973,555 | 311,647 | 1,323,414 |
| In tomato sauce— | | | | | | |
| Quarters ... do | | | 76,407 | 457,073 | 90,392 | 532,185 |
| Halves ... do | | | 1,166 | 5,522 | 5,053 | 44,534 |
| 1 pound ... do | | | 1,334 | 6,413 | 2,171 | 16,457 |
| Plain— | | | | | | |
| Halves ... do | | | 127 | 490 | 483 | 3,121 |
| No. 1 ... do | | | 1,688 | 6,313 | 1,688 | 6,313 |
| Kippered herring— | | | | | | |
| Half pound ... do | | | | | 1,917 | 15,386 |
| 1 pound ... do | | | | | 7,631 | 86,385 |
| Finnan haddie— | | | | | | |
| 6½-ounce ... do | | | | | 197,546 | 486,134 |
| 8-ounce ... do | | | | | 25 | 325 |
| 10½-ounce ... do | | | | | 29,378 | 111,638 |
| 1 pound ... do | | | | | 1,178 | 5,599 |
| Clams (various sizes) ... do | | | | | 85,426 | 439,221 |
| Miscellaneous ... do | | | | | 1,287 | 8,212 |
| Total | | | 1,898,128 | 8,758,426 | 2,774,656 | 13,086,886 |
| Secondary: | | | | | | |
| Fish scrap and meal ... pounds | | | 1,972,000 | 66,959 | 2,328,200 | 81,845 |
| Herring oil ... gallons | | | 690 | 483 | 690 | 483 |
| Total | | | | 67,442 | | 82,328 |
| Grand total | | | | 8,825,868 | | 13,169,214 |

[1] This includes one plant located at Belfast, in Waldo County.
[2] See footnote 2 on p. 149.

*Sardine industry in 1919 and 1920.*—In 1919, 53 plants were engaged in canning sardines, employing 5,463 persons, to whom $1,685,409 were paid in wages. The plants were valued at $3,764,875, the cost of materials used was $4,556,963, and the working capital amounted to $256,107. The herring utilized amounted to 125,309,415 pounds, valued at $852,450. The total pack was 2,450,268 cases, valued at $11,933,986, of which 1,902,430 cases, valued at $9,327,665, were quarter oils.

In 1920 the number of plants operated was 50, valued at $3,816,388; the cost of materials amounted to $3,907,878; the working capital was $250,000; and the number of persons employed was 5,109, to

whom $1,787,402 were paid in wages. The herring utilized amounted to 104,700,010 pounds, valued at $767,141, and the pack was 1,877,757 cases, valued at $7,435,056, of which 1,458,670 cases, valued at $5,669,352, were quarter oils.

The detailed statistics of the sardine industry of Maine in 1919 and 1920, by counties, are shown in the appended tables:

SARDINE INDUSTRY OF MAINE IN 1919 AND 1920, BY COUNTIES.

1919.

| Item. | Cumberland. | | Hancock. | | Knox and Waldo. | |
|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | 5 | $172,673 | 10 | $456,090 | 5 | $225,146 |
| Cost of material | ..... | 241,504 | ..... | 741,150 | ..... | 185,186 |
| Cash capital | ..... | 26,107 | ..... | 46,000 | ..... | 40,000 |
| Persons engaged | 392 | ..... | 832 | ..... | 235 | ..... |
| Wages paid | ..... | 128,187 | ..... | 303,621 | ..... | 100,769 |
| PRODUCTS. | | | | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Herring utilized | 3,395,203 | $34,992 | 21,325,259 | $152,271 | 5,424,020 | $30,945 |
| Canned sardines:[1] | | | | | | |
| In oil— | *Cases.* | *Value.* | *Cases.* | *Value.* | *Cases.* | *Value.* |
| Quarters | 57,071 | $452,237 | 314,909 | $1,754,761 | 71,769 | $369,714 |
| Halves | ..... | ..... | ..... | ..... | ..... | ..... |
| In mustard— | | | | | | |
| Quarters | 1,340 | 6,164 | 9,434 | 43,559 | 1,406 | 6,467 |
| Halves | ..... | ..... | 7,862 | 66,000 | ..... | ..... |
| Three-quarters | 12,531 | 52,477 | 47,882 | 258,025 | 8,871 | 39,357 |
| In tomato sauce— | | | | | | |
| Quarters | 1,225 | 7,446 | 11,458 | 60,962 | 1,302 | 6,704 |
| Halves | 1,071 | 10,280 | ..... | ..... | 2,816 | 28,732 |
| One pound | 811 | 9,732 | ..... | ..... | 26 | 312 |
| Plain— | | | | | | |
| Half-pound | 356 | 2,631 | ..... | ..... | ..... | ..... |
| Number one | ..... | ..... | ..... | ..... | ..... | ..... |
| Total sardines | 74,405 | 540,967 | 391,545 | 2,183,307 | 86,190 | 451,286 |

| Item. | Washington. | | Total. | |
|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | [1] 33 | $2,910,966 | 53 | $3,764,875 |
| Cost of material | ..... | 3,389,123 | ..... | 4,556,963 |
| Cash capital | ..... | 144,000 | ..... | 256,107 |
| Persons engaged | 4,004 | ..... | 5,463 | ..... |
| Wages paid | ..... | 1,152,832 | ..... | 1,685,409 |
| PRODUCTS. | | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Herring utilized | 95,164,933 | $634,242 | 125,309,415 | $852,450 |
| Canned sardines:[2] | | | | |
| In oil— | *Cases.* | *Value.* | *Cases.* | *Value.* |
| Quarters | 1,458,681 | $6,750,953 | 1,902,430 | $9,327,665 |
| Halves | 878 | 11,500 | 878 | 11,500 |
| In mustard— | | | | |
| Quarters | 115,484 | 546,607 | 127,664 | 602,797 |
| Halves | ..... | ..... | 7,862 | 66,000 |
| Three-quarters | 242,363 | 973,555 | 311,647 | 1,323,414 |
| In tomato sauce— | | | | |
| Quarters | 76,407 | 457,073 | 90,392 | 532,185 |
| Halves | 1,166 | 5,522 | 5,053 | 44,534 |
| One pound | 1,334 | 6,413 | 2,171 | 16,457 |
| Plain— | | | | |
| Half-pound | 127 | 490 | 483 | 3,121 |
| Number one | 1,688 | 6,313 | 1,688 | 6,313 |
| Total sardines | 1,898,128 | 8,758,426 | 2,450,268 | 11,933,986 |

[1] Includes one plant located at Belfast, in Waldo County.
[2] Quarters are packed 100 cans to the case and others usually 48 cans to the case, except half-pound ovals, which sometimes contain 72 cans to the case.

SARDINE INDUSTRY OF MAINE IN 1919 AND 1920, BY COUNTIES—Continued.

1920.

| Item. | Cumberland. | | Hancock. | | Knox and Waldo. | |
|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | 6 | $204,132 | 8 | $567,643 | 3 | $245,009 |
| Cost of material | | 133,071 | | 392,975 | | 81,772 |
| Cash capital | | 37,000 | | 37,000 | | 6,500 |
| Persons engaged | 432 | | 649 | | 171 | |
| Wages paid | | 89,285 | | 169,752 | | 64,520 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Herring utilized | 3,073,468 | $30,114 | 9,878,319 | $80,701 | 2,034,800 | $15,915 |
| Canned sardines: [1] | *Cases.* | *Value.* | *Cases.* | *Value.* | *Cases.* | *Value.* |
| In oil— | | | | | | |
| Quarters | 36,510 | $206,232 | 142,985 | $789,168 | 22,077 | $149,628 |
| Halves | | | 2,228 | 22,280 | | |
| In mustard— | | | | | | |
| Quarters | 1,226 | 4,523 | 6,261 | 31,824 | 51 | 204 |
| Three-quarters | 5,492 | 16,650 | 18,067 | 89,842 | 785 | 3,242 |
| In tomato sauce— | | | | | | |
| Quarters | 3,317 | 15,155 | 6,143 | 25,499 | 2,949 | 11,796 |
| Halves | 150 | 1,080 | | | 1,331 | 15,956 |
| Three-quarters | | | | | | |
| One pound | 18,075 | 75,846 | | | 3,712 | 33,408 |
| Total sardines | 64,770 | 319,486 | 175,684 | 958,613 | 30,905 | 214,234 |

| Item. | Washington. | | Total. | |
|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | [1] 33 | $2,799,604 | 50 | $3,816,388 |
| Cost of material | | 3,300,060 | | 3,907,878 |
| Cash capital | | 169,500 | | 250,000 |
| Persons engaged | 3,857 | | 5,109 | |
| Wages paid | | 1,463,845 | | 1,787,402 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Herring utilized | 89,713,423 | $640,411 | 104,700,010 | $767,141 |
| Canned sardines: [2] | *Cases.* | *Value.* | *Cases.* | *Value.* |
| In oil— | | | | |
| Quarters | 1,257,098 | $4,524,324 | 1,458,670 | $5,669,352 |
| Halves | | | 2,228 | 22,280 |
| In mustard— | | | | |
| Quarters | 43,945 | 185,493 | 51,483 | 222,044 |
| Three-quarters | 158,625 | 586,330 | 182,969 | 696,064 |
| In tomato sauce— | | | | |
| Quarters | 145,905 | 641,832 | 158,314 | 694,282 |
| Halves | | | 1,481 | 17,036 |
| Three-quarters | 348 | 1,643 | 348 | 1,643 |
| One pound | 477 | 3,101 | 22,264 | 112,355 |
| Total sardines | 1,606,398 | 5,942,723 | 1,877,757 | 7,435,056 |

[1] Includes two plants located in Waldo County.
[2] Quarters are packed 100 cans to the case and others usually 48 cans to the case, except half-pound ovals, which sometimes contain 72 cans to the case.

## FISHERIES OF NEW HAMPSHIRE.

The coastal fisheries of New Hampshire are unimportant in comparison with the fisheries of the other New England States and are confined to Rockingham County, the only coastal county. In 1919 the number of persons employed was 100, of whom 3 were on a vessel transporting fishery products, 85 in the shore and boat fisheries, and 12 shoresmen in wholesale fish establishments. The amount of capital invested was $45,530 and included: A transporting vessel with outfit, valued at $9,300; 31 small boats, valued at $802; 53 power boats, valued at $10,675; fishing apparatus in the shore fish-

eries to the value of $7,295; shore and accessory property with a value of $11,958, and cash capital amounting to $5,500.

The products amounted to 528,730 pounds, valued at $92,660. The species of chief importance were as follows: Lobsters, 298,012 pounds, valued at $73,203; soft clams, 66,600 pounds, valued at $13,320; and cod, 98,354 pounds, valued at $3,609.

Compared with 1905, there has been a decrease of 45 in the number of persons employed, of $1,520 in the capital invested, and of 507,722 pounds in the quantity of products; but an increase in the value of the products of $40,716. There has been an increase in the catch of lobsters as compared with 1905 of 41,960 pounds in quantity and $40,628 in value and a decrease in the collection of Irish moss of 54,000 pounds in quantity and $1,980 in the value.

### FISHERIES OF ROCKINGHAM COUNTY.

The following table shows the number of persons employed, the investment, and the quantity and value of the products of the fisheries of Rockingham County, N. H., in 1919:

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF ROCKINGHAM COUNTY, N. H., IN 1919.

| Item. | Number. | Value. |
|---|---|---|
| PERSONS ENGAGED. | | |
| On vessels transporting | 3 | ..... |
| Inshore fisheries | 85 | ..... |
| Shoresmen | 12 | ..... |
| Total | 100 | ..... |
| INVESTMENT. | | |
| Vessels transporting: Gasoline | 1 | $6,300 |
| Tonnage | 8 | ..... |
| Outfit | ..... | 3,000 |
| Boats: | | |
| Sail, row, etc | 31 | 802 |
| Power | 53 | 10,675 |
| Apparatus, shore fisheries: | | |
| Hand line | ..... | 70 |
| Trawl lines | ..... | 392 |
| Lobster pots | 2,275 | 6,735 |
| Eel pots | 18 | 36 |
| Clam hoes | 25 | 50 |
| Moss rakes | 2 | 12 |
| INVESTMENT—continued. | | |
| Shore and accessory property | ..... | $11,958 |
| Cash capital | ..... | 5,500 |
| Total | ..... | 45,530 |
| PRODUCTS. | *Pounds.* | *Value.* |
| Cod | 98,354 | 3,609 |
| Cusk | 2,400 | 86 |
| Eels | 2,000 | 240 |
| Flounders | 8,000 | 240 |
| Haddock | 18,764 | 829 |
| Hake | 3,000 | 98 |
| Pollock | 25,600 | 615 |
| Lobsters | 298,012 | 73,203 |
| Clams, soft | [1] 66,600 | 13,320 |
| Irish moss | 6,000 | 420 |
| Total | 528,730 | 92,660 |

[1] 6,660 bushels.

### FISHERIES BY APPARATUS.

No vessels were employed in the capture of fish in 1919. The largest quantity in the shore fisheries, consisting of 298,012 pounds of lobsters, valued at $73,203, was taken with lobster pots. The catch with hand lines, amounting to 156,118 pounds, valued at $5,477, was second, and the catch of soft clams with clam hoes, third. The principal species taken with hand lines were cod, pollock, haddock, and flounders. The following table gives the products of the shore fisheries in 1919 by apparatus and species:

YIELD OF THE SHORE FISHERIES OF NEW HAMPSHIRE IN 1919, BY APPARATUS AND SPECIES.

| Apparatus and species. | Pounds. | Value. | Apparatus and species. | Pounds. | Value. |
|---|---|---|---|---|---|
| Lines: | | | Lobster pots: Lobsters | 298,012 | $73,203 |
| Cod | 98,354 | $3,609 | Eel pots: Eels | 2,000 | 240 |
| Cusk | 2,400 | 86 | Clam hoes: Soft clams | 66,600 | 13,320 |
| Flounders | 8,000 | 240 | Moss rakes: Irish moss | 6,000 | 420 |
| Haddock | 18,764 | 829 | | | |
| Hake | 3,000 | 98 | Grand total | 528,730 | 92,660 |
| Pollock | 25,600 | 615 | | | |
| Total | 156,118 | 5,477 | | | |

WHOLESALE FISHERY TRADE.

There were only 2 wholesale fresh-fish establishments in Rockingham County in 1919, valued at $7,540, using cash capital to the amount of $5,500 and employing 12 persons, to whom $12,678 were paid in wages.

## FISHERIES OF MASSACHUSETTS.

The fisheries of Massachusetts in 1919 were more productive than those of all the other New England States combined. The number of persons employed was 12,346, of whom 4,459 were on fishing vessels, 66 on vessels transporting fishery products, 3,737 in the shore and boat fisheries, and 4,084 shoresmen in the wholesale plants, canneries, salteries, smokehouses, by-products plants, and other shore establishments.

The investment included 421 fishing and transporting vessels, valued at $6,192,118, having a net tonnage of 16,838 tons and outfits valued at $1,860,766; 3,040 power, sail, row, and other small boats, valued at $949,683; apparatus employed in the vessel and boat fisheries to the value of $1,205,518; shore and accessory property valued at $7,000,239, and cash capital to the amount of $1,902,945, making a total investment of $19,111,269.

The products of the fisheries amounted to 246,951,241 pounds, valued at $10,859,746. The most important species arranged in the order of their value were: Cod, 69,496,325 pounds, valued at $2,992,793; haddock, 78,178,384 pounds, valued at $2,208,211; common mackerel, 13,516,194 pounds, valued at $1,322,409; lobsters, 2,387,636 pounds, valued at $516,393; flounders, 10,262,693 pounds, valued at $478,850; pollock, 19,242,541 pounds, valued at $469,943; and scallops, 1,332,486 pounds, or 222,081 bushels, valued at $439,382.

Compared with the Bureau's returns for 1905 there has been a decrease in the number of persons employed of 3,348, an increase in the investment amounting to $8,300,827, a decrease in the quantity of products taken amounting to 8,703,234 pounds, and an increase in the value amounting to $3,834,497. The species for which there has been a notable increase in 1919 as compared with 1905, with the amount of increase follow: Flounders, 6,219,010 pounds; squid, 5,348,807 pounds; whiting, 9,618,960 pounds; lobsters, 1,104,565 pounds; scallops, 1,069,249 pounds; and hard crabs, 1,704,961 pounds. Those for which there has been a marked decrease as compared with 1905 are: Alewives, 1,673,820 pounds; cusk, 5,877,991 pounds; hake, 16,605,435 pounds; halibut, 1,796,447 pounds; and herring, 7,553,045 pounds.

FISHERIES BY COUNTIES.

The statistics of the number of persons employed, investment, and products of the fisheries in Massachusetts in 1919 are given by counties in the appended table:

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES.

| Item. | Barnstable. | | Bristol. | | Dukes. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 504 | | 218 | | 54 | |
| On vessels transporting | 6 | | | | | |
| Inshore fisheries | 1,386 | | 355 | | 229 | |
| Shoresmen | 638 | | 169 | | 34 | |
| Total | 2,534 | | 742 | | 317 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Steam | 1 | $12,000 | | | | |
| Tonnage | 55 | | | | | |
| Outfit | | 4,400 | | | | |
| Gasoline | 68 | 186,150 | 15 | $52,500 | 14 | $59,100 |
| Tonnage | 626 | | 160 | | 128 | |
| Outfit | | 88,940 | | 24,900 | | 16,210 |
| Sail | 12 | 139,500 | 6 | 98,200 | | |
| Tonnage | 1,259 | | 829 | | | |
| Outfit | | 126,525 | | 24,200 | | |
| Vessels transporting: | | | | | | |
| Gasoline | 3 | 8,500 | | | | |
| Tonnage | 17 | | | | | |
| Outfit | | 450 | | | | |
| Boats: | | | | | | |
| Sail, row, etc. | 633 | 39,000 | 149 | 3,145 | 70 | 3,043 |
| Power | 500 | 238,770 | 161 | 43,375 | 167 | 74,125 |
| Apparatus, vessel fisheries: | | | | | | |
| Purse seines | 15 | 32,800 | 8 | 3,650 | 3 | 2,100 |
| Gill nets | 661 | 13,835 | 340 | 5,550 | 555 | 10,080 |
| Otter trawls | 35 | 2,645 | 4 | 300 | 5 | 300 |
| Lines, hand and trawl | | 8,294 | | 960 | | 2,694 |
| Harpoons | | 800 | | 925 | | 725 |
| Lobster pots | 75 | 150 | 80 | 200 | 275 | 700 |
| Dredges | 158 | 1,571 | 2 | 30 | 12 | 60 |
| Tongs | | | 1 | 9 | | |
| Whaling apparatus | | 12,000 | | 17,000 | | |
| Apparatus, shore fisheries: | | | | | | |
| Purse seines | 4 | 2,600 | | | 1 | 150 |
| Haul seines | 13 | 1,085 | 6 | 415 | 3 | 540 |
| Gill nets | 881 | 13,370 | 20 | 275 | 40 | 640 |
| Pound nets, trap nets, and weirs | 151 | 326,700 | 18 | 8,200 | 31 | 22,100 |
| Fyke nets | 44 | 1,010 | 7 | 475 | 2 | 100 |
| Bow nets | 13 | 36 | | | | |
| Dip nets | 63 | 138 | | | | |
| Otter trawls | 36 | 1,970 | 2 | 170 | 52 | 2,875 |
| Lines, hand and trawl | | 10,250 | | 152 | | 91 |
| Harpoons | | | | 60 | | 480 |
| Spears | 27 | 51 | 29 | 83 | | |
| Cunner traps | | | 4 | 6 | | |
| Cockle traps | 400 | 360 | | | | |
| Lobster pots | 2,750 | 5,549 | 7,352 | 15,762 | 5,543 | 15,661 |
| Eel pots | 738 | 1,503 | 55 | 100 | 587 | 1,545 |
| Dredges | 1,086 | 7,561 | 256 | 1,280 | 416 | 2,080 |
| Tongs | 115 | 674 | 70 | 390 | | |
| Rakes | 537 | 2,219 | 92 | 1,054 | 54 | 1,080 |
| Forks and hoes | 139 | 286 | 1 | 1 | 7 | 14 |
| Shore and accessory property | | 1,492,266 | | 124,035 | | 66,405 |
| Cash capital | | 83,650 | | 16,000 | | 9,000 |
| Total | | 2,867,608 | | 443,402 | | 291,898 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | |
| Fresh | 313,466 | $5,634 | 104,795 | $2,075 | 551,150 | $14,141 |
| Salted | 801,600 | 36,620 | 60,534 | 2,220 | 140,000 | 6,300 |
| Smoked | 39,000 | 2,845 | | | | |
| Bluefish | 3,932 | 696 | | | 121 | 24 |
| Bonito | 33,956 | 2,549 | 40 | 4 | 95,461 | 9,929 |
| Butterfish | 180,500 | 15,577 | 11,700 | 850 | 56,899 | 5,853 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES—Continued.

| Item. | Barnstable. | | Bristol. | | Dukes. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Catfish and wolffish | 20,976 | $330 | | | | |
| Cod: | | | | | | |
| Fresh | 6,132,372 | 229,207 | 176,870 | $10,697 | 201,259 | $14,313 |
| Salted | 6,500 | 450 | | | | |
| Cunners | | | 7,150 | 500 | | |
| Cusk, fresh | 16,428 | 436 | | | | |
| Eels | 112,708 | 16,912 | 24,778 | 2,880 | 79,500 | 11,505 |
| Flounders | 3,979,872 | 161,782 | 187,123 | 9,058 | 913,238 | 59,457 |
| Grayfish | 1,000 | 10 | 62,667 | 174 | | |
| Goosefish | | | 2,500 | 7 | | |
| Haddock, fresh | 5,865,917 | 172,356 | | | 65,554 | 4,553 |
| Hake, fresh | 644,902 | 15,839 | 2,763 | 180 | 15,086 | 1,501 |
| Halibut, fresh | 19,318 | 4,385 | 20,000 | 5,000 | | |
| Herring | 6,445,441 | 80,284 | 88,765 | 1,373 | 25 | 3 |
| Hickory shad | 11,650 | 780 | 1,150 | 50 | | |
| Kingfish | | | 72 | 18 | | |
| Launce | 67,800 | 838 | | | | |
| Mackerel: | | | | | | |
| Fresh | 3,596,851 | 337,779 | 263,445 | 26,526 | 335,337 | 41,320 |
| Frigate | | | | | 61,361 | 1,862 |
| Menhaden | 69,303 | 1,605 | 46,516 | 272 | 5,400 | 54 |
| Minnows | 1,000 | 125 | | | | |
| Perch, white | | | 200 | 20 | 6,000 | 900 |
| Pollock, fresh | 1,242,907 | 29,749 | 140 | 5 | 45,871 | 1,398 |
| Pompano | 14 | 2 | | | | |
| Rosefish | 305 | 9 | | | | |
| Round herring | 941 | 19 | | | | |
| Sculpin | | | 6,000 | 15 | | |
| Scup | 10,314 | 759 | 52 | 6 | 65,278 | 4,626 |
| Sea bass | 345 | 110 | 2,289 | 50 | 10,365 | 1,182 |
| Sea robin | | | 400 | 1 | | |
| Shad | 5,645 | 1,553 | 352 | 85 | 37 | 7 |
| Sharks | 314,525 | 3,220 | 3,175 | 71 | | |
| Skates and rays | 885 | 17 | 93,649 | 381 | | |
| Smelt | 257 | 38 | 97 | 13 | | |
| Squeteague | 613 | 74 | 962 | 151 | 4,202 | 683 |
| Striped bass | 307 | 115 | 605 | 103 | 59 | 13 |
| Sturgeon | 5,183 | 1,191 | | | | |
| Sturgeon caviar | 30 | 85 | | | | |
| Sturgeon roe | 175 | 150 | | | | |
| Swordfish | 112,935 | 20,860 | 109,141 | 22,865 | 121,538 | 25,740 |
| Tautog | 35,427 | 2,589 | 46,369 | 5,421 | 822 | 49 |
| Tilefish | | | 38,000 | 1,330 | | |
| Tomcod | 2,200 | 6 | 4,690 | 183 | | |
| Tuna | 37,048 | 2,716 | 53 | 2 | | |
| Whiting | 11,173,383 | 135,485 | 57,709 | 948 | 62,727 | 365 |
| Other species | 9,500 | 100 | 8,411 | 388 | 20,321 | 1,629 |
| Squid | 5,837,988 | 104,364 | 141,129 | 2,184 | 16,459 | 253 |
| Blackfish | 40,000 | 40 | | | | |
| Porpoise | 750 | 15 | | | | |
| Clams: | | | | | | |
| Hard— | | | | | | |
| Public | 293,520 | 99,348 | 195,360 | 63,600 | 79,120 | 27,300 |
| Private | 22,640 | 12,425 | | | | |
| Soft— | | | | | | |
| Public | 136,000 | 13,189 | 6,000 | 900 | 5,000 | 875 |
| Private | 125,000 | 10,750 | | | | |
| Razor | 23,300 | 3,500 | | | | |
| Oysters: | | | | | | |
| Market— | | | | | | |
| Public | 875 | 150 | 1,120 | 400 | | |
| Private | 723,835 | 265,397 | 21,945 | 5,380 | | |
| Seed—Private | 68,978 | 5,912 | | | | |
| Scallops | 501,264 | 145,523 | 42,300 | 14,200 | 301,020 | 88,325 |
| Cockles | 2,400 | 1,025 | | | | |
| Lobsters | 99,420 | 26,988 | 256,618 | 54,402 | 610,497 | 104,610 |
| Shrimp | 3,100 | 1,550 | | | | |
| Spawn | 37,107 | 1,601 | | | | |
| Livers | 150 | 1 | | | | |
| Sperm oil | 678,375 | 92,450 | 867,038 | 125,661 | | |
| Ambergris | 30 | 5,000 | | | | |
| Alewife scales | 4,000 | 2,000 | | | | |
| Total | 49,916,193 | 2,077,114 | 2,964,672 | 360,649 | 3,869,707 | 428,770 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES—Continued.

| Item. | Essex. | | Nantucket. | | Norfolk. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 2,345 | | 43 | | | |
| On vessels transporting | 30 | | 3 | | | |
| Inshore fisheries | 624 | | 100 | | 45 | |
| Shoresmen | 2,058 | | 6 | | 2 | |
| Total | 5,057 | | 152 | | 47 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Steam | 11 | $502,065 | 1 | $4,000 | | |
| Tonnage | 931 | | 15 | | | |
| Outfit | | 119,866 | | 1,650 | | |
| Gasoline | 146 | 1,950,303 | 13 | 24,200 | | |
| Tonnage | 5,302 | | 122 | | | |
| Outfit | | 671,348 | | 16,075 | | |
| Sail | 23 | 379,500 | 1 | 100 | | |
| Tonnage | 1,780 | | 5 | | | |
| Outfit | | 110,222 | | 15 | | |
| Vessels transporting: | | | | | | |
| Gasoline | 5 | 59,350 | 1 | 300 | | |
| Tonnage | 290 | | 6 | | | |
| Outfit | | 3,170 | | | | |
| Sail | 3 | 13,800 | | | | |
| Tonnage | 132 | | | | | |
| Outfit | | 2,375 | | | | |
| Boats: | | | | | | |
| Sail, row, etc. | 163 | 4,435 | 20 | 700 | 21 | $680 |
| Power | 324 | 152,390 | 78 | 25,655 | 31 | 7,450 |
| Apparatus, vessel fisheries: | | | | | | |
| Purseseines | 64 | 130,700 | 1 | 600 | | |
| Gill nets | 3,089 | 63,875 | 100 | 1,600 | | |
| Otter trawls | 36 | 4,145 | 6 | 360 | | |
| Lines, hand and trawl | | 82,495 | | | | |
| Harpoons | | 2,780 | | 200 | | |
| Dredges | | | 42 | 795 | | |
| Rakes | | | 2 | 40 | | |
| Apparatus, shore fisheries: | | | | | | |
| Purseseines | 20 | 39,000 | | | | |
| Haulseines | 11 | 575 | | | | |
| Gill nets | 1,724 | 40,363 | 10 | 1,500 | | |
| Pound nets, trap nets, and weirs | 43 | 19,650 | 3 | 3,000 | | |
| Dip nets | 12 | 63 | | | | |
| Otter trawls | 25 | 1,440 | 32 | 835 | | |
| Lines, hand and trawl | | 14,797 | | 265 | | 70 |
| Spears | 6 | 11 | | | 8 | 20 |
| Cockle traps | 280 | 140 | | | | |
| Lobster pots | 10,859 | 26,929 | 622 | 1,866 | 2,289 | 6,440 |
| Eel pots | 119 | 326 | 180 | 540 | 15 | 45 |
| Dredges | | | 384 | 1,720 | | |
| Rakes | | | 40 | 1,010 | 5 | 30 |
| Forks and hoes | 134 | 208 | | | 11 | 22 |
| Shore and accessory property | | 3,563,906 | | 30,165 | | 3,145 |
| Cash capital | | 374,795 | | 3,000 | | 1,200 |
| Total | | 8,335,022 | | 120,191 | | 19,102 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives: | | | | | | |
| Fresh | 29,815 | $344 | 16,400 | $164 | | |
| Salted | | | 27,000 | 1,080 | | |
| Bluefish | 668 | 71 | | | | |
| Bonito | 670 | 54 | 59,400 | 5,470 | | |
| Butterfish | 20,469 | 2,126 | | | | |
| Catfish and wolffish | 64,236 | 1,991 | | | | |
| Cod: | | | | | | |
| Fresh | 39,449,727 | 1,695,709 | 192,400 | 8,120 | 22,000 | $1,760 |
| Salted | 3,137,905 | 162,452 | 30,000 | 3,600 | | |
| Cunners | 2,809 | 85 | | | | |
| Cusk: | | | | | | |
| Fresh | 1,073,168 | 37,681 | | | | |
| Salted | 16,870 | 759 | | | | |
| Eels | 113,991 | 10,177 | 30,000 | 4,500 | 3,000 | 530 |
| Flounders | 2,171,726 | 93,786 | 611,210 | 49,090 | 8,000 | 800 |
| Haddock: | | | | | | |
| Fresh | 25,468,781 | 714,799 | 16,100 | 508 | 500 | 40 |
| Salted | 373,574 | 16,996 | | | | |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES—Continued.

| Item. | Essex. | | Nantucket. | | Norfolk. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | | | | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Hake: | | | | | | |
| Fresh | 1,957,170 | $79,601 | | | | |
| Salted | 29,095 | 1,307 | | | | |
| Halibut: | | | | | | |
| Fresh | 1,435,835 | 249,254 | | | | |
| Salted | 8,045 | 1,060 | | | | |
| Herring | 2,241,108 | 29,625 | 2,000 | $300 | | |
| Mackerel: | | | | | | |
| Fresh | 6,953,882 | 661,856 | 89,700 | 7,925 | | |
| Salted | 1,249,062 | 109,948 | | | | |
| Perch, yellow | 500 | 25 | | | | |
| Pollock: | | | | | | |
| Fresh | 13,956,759 | 341,242 | 28,400 | 1,486 | 1,000 | $0.80 |
| Salted | 50,153 | 1,774 | | | | |
| Rosefish | 20,150 | 487 | | | | |
| Scup | | | 2,450 | 245 | | |
| Sea bass | 18 | 2 | 2,000 | 300 | | |
| Shad | 33,366 | 1,297 | 12,800 | 750 | | |
| Sharks | 9,594 | 319 | | | | |
| Skates and rays | 3,510 | 56 | | | | |
| Smelt | 7,796 | 1,864 | | | 22,200 | 6,425 |
| Sturgeon | 1,080 | 103 | 4,500 | 1,800 | | |
| Sturgeon caviar | | | 120 | 271 | | |
| Sturgeon roe | 6 | 13 | | | | |
| Swordfish | 275,502 | 64,951 | 1,300 | 214 | | |
| Tautog | 158 | 6 | | | 2,000 | 180 |
| Tilefish | 116,670 | 7,000 | | | | |
| Tuna | 5,000 | 750 | | | | |
| Whiting | 2,564,231 | 11,343 | 53,600 | 660 | | |
| Squid | 121,831 | 1,671 | 3,350 | 83 | | |
| Clams: | | | | | | |
| Hard, public | 600 | 75 | 247,944 | 68,836 | | |
| Soft, public | 460,060 | 58,206 | | | 63,470 | 9,620 |
| Scallops | | | 103,452 | 46,230 | | |
| Cockles | 300,000 | 1,350 | | | | |
| Crabs, hard | 18,167 | 395 | | | 18,475 | 554 |
| Lobsters | 677,387 | 161,249 | 19,446 | 8,759 | 77,054 | 19,390 |
| Shrimp | 300 | 39 | | | | |
| Tongues | 600 | 12 | | | | |
| Spawn | 57,462 | 3,401 | | | | |
| Livers | 282,875 | 4,366 | | | | |
| Irish moss | | | | | 25,500 | 1,912 |
| Total | 104,762,381 | 4,531,677 | 1,553,572 | 210,391 | 243,199 | 41,291 |

| Item. | Plymouth. | | Suffolk. | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | | | | | | |
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 2 | | 1,293 | | 4,459 | |
| On vessels transporting | | | 27 | | 66 | |
| Inshore fisheries | 485 | | 513 | | 3,737 | |
| Shoresmen | 99 | | 1,078 | | 4,084 | |
| Total | 586 | | 2,911 | | 12,346 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Steam | | | 21 | $1,966,480 | 34 | $2,484,545 |
| Tonnage | | | 2,309 | | 3,310 | |
| Outfit | | | | 304,045 | | 429,961 |
| Gasoline | 1 | $2,500 | 51 | 501,755 | 308 | 2,776,508 |
| Tonnage | 8 | | 1,856 | | 8,202 | |
| Outfit | | 120 | | 241,845 | | 1,059,438 |
| Sail | | | 12 | 191,015 | 54 | 808,315 |
| Tonnage | | | 861 | | 4,734 | |
| Outfit | | | | 91,350 | | 352,312 |
| Vessels transporting: | | | | | | |
| Gasoline | | | 13 | 40,800 | 22 | 108,950 |
| Tonnage | | | 147 | | 460 | |
| Outfit | | | | 13,060 | | 16,680 |
| Sail | | | | | 3 | 13,800 |
| Tonnage | | | | | 132 | |
| Outfit | | | | | | 2,375 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES—Continued.

| Item. | Plymouth. | | Suffolk. | | Total. | |
|---|---|---|---|---|---|---|
| INVESTMENT—continued. | | | | | | |
| Boats: | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Sail, row, etc. | 219 | $5,655 | 33 | $1,830 | 1,308 | $58,488 |
| Power | 280 | 90,570 | 191 | 258,860 | 1,732 | 891,195 |
| Apparatus, vessel fisheries: | | | | | | |
| Purse seines | | | 9 | 24,000 | 100 | 193,850 |
| Gill nets | | | 685 | 12,745 | 5,430 | 107,685 |
| Otter trawls | | | 33 | 10,100 | 119 | 17,850 |
| Lines, hand and trawl | | | | 39,215 | | 133,658 |
| Harpoons | | | | 1,225 | | 6,655 |
| Lobster pots | | | | | 430 | 1,050 |
| Dredges | 10 | 60 | | | 224 | 2,516 |
| Tongs | | | | | 1 | 9 |
| Rakes | | | | | 2 | 40 |
| Whaling apparatus | | | | | | 29,000 |
| Apparatus, shore fisheries: | | | | | | |
| Purse seines | 1 | 300 | | | 26 | 42,050 |
| Haul seines | 2 | 180 | 6 | 1,200 | 41 | 3,995 |
| Gill nets | 38 | 1,675 | 975 | 19,500 | 3,688 | 77,323 |
| Pound nets, trap nets, and weirs | 8 | 7,820 | | | 254 | 387,470 |
| Fyke nets | | | | | 53 | 1,585 |
| Bow nets | | | | | 13 | 36 |
| Dip nets | 22 | 132 | 7 | 41 | 104 | 374 |
| Otter trawls | 2 | 120 | 42 | 2,100 | 191 | 9,510 |
| Lines, hand and trawl | | 719 | | 25,068 | | 51,412 |
| Harpoons | | | | | | 540 |
| Spears | 2 | 6 | | | 72 | 171 |
| Cunner traps | | | | | 4 | 6 |
| Cockle traps | | | | | 680 | 500 |
| Lobster pots | 11,347 | 31,182 | 2,250 | 5,970 | 43,012 | 109,359 |
| Eel pots | 132 | 396 | | | 1,826 | 4,455 |
| Dredges | 622 | 3,880 | | | 2,764 | 16,521 |
| Tongs | 50 | 291 | | | 235 | 1,355 |
| Rakes | 56 | 263 | | | 784 | 5,656 |
| Forks and hoes | 130 | 265 | 53 | 91 | 475 | 887 |
| Shore and accessory property | | 106,136 | | 1,614,181 | | 7,000,239 |
| Cash capital | | 7,300 | | 1,498,000 | | 1,902,945 |
| Total | | 259,570 | | 6,774,476 | | 19,111,269 |
| PRODUCTS. | | | | | | |
| Alewives: | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Fresh | 81,050 | $704 | 800 | $8 | 1,097,476 | $23,070 |
| Salted | 230,000 | 9,775 | | | 1,259,134 | 55,995 |
| Smoked | | | | | 39,000 | 2,845 |
| Bluefish | | | | | 4,721 | 791 |
| Bonito | | | 200 | 12 | 189,727 | 18,018 |
| Butterfish | 4,775 | 517 | 22,485 | 1,887 | 296,828 | 26,810 |
| Catfish and wolffish | | | 205,976 | 6,898 | 291,188 | 9,219 |
| Cod: | | | | | | |
| Fresh | 182,113 | 7,926 | 19,964,179 | 858,359 | 66,320,920 | 2,826,091 |
| Salted | 1,000 | 200 | | | 3,175,405 | 166,702 |
| Cunners | | | | | 9,959 | 585 |
| Cusk: | | | | | | |
| Fresh | 3,000 | 84 | 468,741 | 16,867 | 1,561,337 | 55,068 |
| Salted | | | | | 16,870 | 759 |
| Eels | 9,700 | 1,203 | 490 | 7 | 374,167 | 47,714 |
| Flounders | 42,700 | 1,994 | 2,348,824 | 102,883 | 10,262,693 | 478,850 |
| Grayfish | | | | | 63,667 | 184 |
| Goosefish | | | | | 2,500 | 7 |
| Haddock: | | | | | | |
| Fresh | 4,750 | 183 | 46,383,208 | 1,298,776 | 77,804,810 | 2,191,215 |
| Salted | | | | | 373,574 | 16,996 |
| Hake: | | | | | | |
| Fresh | 3,100 | 125 | 1,443,416 | 59,107 | 4,066,437 | 156,352 |
| Salted | | | | | 29,095 | 1,307 |
| Halibut: | | | | | | |
| Fresh | | | 233,356 | 37,593 | 1,708,509 | 296,232 |
| Salted | | | | | 8,045 | 1,060 |
| Herring | 1,810,600 | 11,519 | 223,470 | 6,304 | 10,811,409 | 129,408 |
| Hickory shad | | | | | 12,800 | 830 |
| Kingfish | | | | | 72 | 18 |
| Launce | | | | | 67,800 | 838 |
| Mackerel: | | | | | | |
| Fresh | 48,887 | 5,991 | 979,030 | 131,064 | 12,267,132 | 1,212,461 |
| Salted | | | | | 1,249,062 | 109,948 |
| Frigate | | | | | 61,361 | 1,862 |
| Menhaden | 40,000 | 300 | | | 161,219 | 2,231 |
| Minnows | | | | | 1,000 | 125 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES—Continued.

| Item. | Plymouth. | | Suffolk. | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | | | | | | |
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Perch: | | | | | | |
| White | | | | | 6,200 | $920 |
| Yellow | | | | | 500 | 25 |
| Pollock: | | | | | | |
| Fresh | 15,600 | $474 | 3,901,711 | $93,735 | 19,192,388 | 468,169 |
| Salted | | | | | 50,153 | 1,774 |
| Pompano | | | | | 14 | 2 |
| Rosefish | | | 16,318 | 628 | 36,773 | 1,124 |
| Round herring | | | | | 941 | 19 |
| Sculpin | | | | | 6,000 | 15 |
| Scup | 500 | 30 | | | 78,624 | 5,666 |
| Sea bass | 50 | 5 | | | 15,067 | 1,649 |
| Sea robin | | | | | 400 | 1 |
| Shad | | | 10,137 | 617 | 62,337 | 4,309 |
| Sharks | | | 1,105 | 54 | 328,399 | 3,664 |
| Skates and rays | | | 2,310 | 49 | 100,354 | 503 |
| Smelt | 7,500 | 2,025 | 1,300 | 325 | 39,150 | 10,690 |
| Squeteague | | | | | 5,777 | 908 |
| Striped bass | | | | | 971 | 231 |
| Sturgeon | | | 1,335 | 264 | 12,098 | 3,358 |
| Sturgeon caviar | | | | | 150 | 356 |
| Sturgeon roe | | | | | 181 | 163 |
| Swordfish | | | 91,313 | 20,700 | 711,729 | 155,330 |
| Tautog | 7,100 | 640 | | | 91,876 | 8,885 |
| Tilefish | | | 33,510 | 1,473 | 188,180 | 9,803 |
| Tomcod | | | 1,000 | 50 | 7,890 | 239 |
| Tuna | 800 | 80 | | | 42,901 | 3,548 |
| Whiting | 7,000 | 53 | | | 13,918,650 | 148,854 |
| Other species | | | | | 38,232 | 2,117 |
| Squid | 13,800 | 309 | | | 6,134,557 | 108,864 |
| Blackfish | | | | | 40,000 | 40 |
| Porpoise | | | | | 750 | 15 |
| Clams: | | | | | | |
| Hard— | | | | | | |
| Public | 36,760 | 12,183 | | | [1] 853,304 | 271,342 |
| Private | | | | | [2] 22,640 | 12,425 |
| Soft— | | | | | | |
| Public | 1,146,100 | 122,885 | 246,000 | 26,519 | [3] 2,062,630 | 232,194 |
| Private | | | | | [4] 125,000 | 10,750 |
| Razor | | | | | [5] 23,300 | 3,500 |
| Oysters: | | | | | | |
| Market— | | | | | | |
| Public | 3,584 | 833 | | | [6] 5,579 | 1,383 |
| Private | 23,275 | 7,387 | | | [7] 769,055 | 278,164 |
| Seed— | | | | | | |
| Public | 23,100 | 1,320 | | | [8] 23,100 | 1,320 |
| Private | 11,200 | 640 | | | [9] 80,178 | 6,552 |
| Scallops | 384,450 | 145,104 | | | [10] 1,332,486 | 439,382 |
| Cockles | 275,000 | 1,050 | | | [11] 577,400 | 3,425 |
| Crabs: | | | | | | |
| Hard | 8,000 | 165 | 1,720,319 | 48,310 | [12] 1,764,961 | 49,424 |
| Soft | 266 | 40 | | | [13] 266 | 40 |
| Lobsters | 575,829 | 119,580 | 71,385 | 21,415 | 2,387,636 | 516,393 |
| Shrimp | | | | | 3,400 | 1,589 |
| Tongues | | | | | 600 | 12 |
| Spawn | | | 52,360 | 3,834 | 146,929 | 8,836 |
| Livers | | | 30,550 | 477 | 313,575 | 4,844 |
| Sperm oil | | | | | [14] 1,545,413 | 218,111 |
| Ambergris | | | | | 30 | 5,000 |
| Alewife scales | 6,400 | 3,200 | | | 10,400 | 5,200 |
| Irish moss | 178,700 | 13,115 | | | 204,200 | 15,027 |
| Total | 5,186,689 | 471,639 | 78,454,828 | 2,738,215 | 246,951,241 | 10,859,746 |

[1] 106,663 bushels.
[2] 2,830 bushels.
[3] 206,263 bushels.
[4] 12,500 bushels.
[5] 2,330 bushels.
[6] 797 bushels.
[7] 109,865 bushels.
[8] 3,300 bushels.
[9] 11,454 bushels.
[10] 222,081 bushels.
[11] 57,740 bushels.
[12] 5,294,883 in number.
[13] 798 in number.
[14] 206,055 gallons.

## FISHERIES BY APPARATUS.

The combined yield of all forms of apparatus employed in both the vessel and shore fisheries of Massachusetts in 1919 amounted to 246,951,241 pounds, valued at $10,859,746. Lines were the most

productive form, yielding 108,703,430 pounds, valued at $4,311,755, the principal species taken being: Cod, 62,604,055 pounds, valued at $2,699,786; haddock, 33,154,060 pounds, valued at $945,599; halibut, 1,649,305 pounds, valued at $285,860; hake, 3,436,229 pounds, valued at $130,755; and pollock, 4,698,115 pounds, valued at $116,328. Otter trawls ranked second, with 58,584,932 pounds, valued at $1,906,360, of which 42,593,223 pounds, valued at $1,195,-092, were haddock. Gill nets, employed chiefly in the taking of mackerel, pollock, haddock, and cod, yielded 18,204,216 pounds, valued at $814,940. The catch with seines amounted to 14,159,335 pounds, valued at $792,721. The most important species taken in seines was mackerel, the catch of which amounted to 8,552,827 pounds, valued at $738,220. Various species were taken in pound nets, trap nets, and weirs to the amount of 32,314,809 pounds, valued at $655,005. Other important forms of apparatus used in both the vessel and shore fisheries were dredges, with 2,023,428 pounds of oysters, scallops, and clams, valued at $680,331; tongs, rakes, hoes, and forks, with 3,387,906 pounds of oysters, scallops, clams, and Irish moss, valued at $577,203; and lobster pots with 4,152,597 pounds of lobsters and crabs, valued at $565,817.

The following tables give the products of the vessel and shore fisheries by counties, apparatus, and species:

YIELD OF VESSEL FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES.

| Apparatus and species. | Barnstable. | | Bristol. | | Dukes. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls: | | | | | | |
| Cod—Fresh | 1,260 | $60 | 650 | $25 | | |
| Flounders | 2,888,935 | 110,022 | 92,000 | 4,800 | 243,420 | $12,805 |
| Haddock—Fresh | 220 | 13 | | | | |
| Hake | 385 | 5 | 80 | 2 | | |
| Pollock—Fresh | | | 120 | 4 | | |
| Scallops | | | 300 | 200 | | |
| Total | 2,890,800 | 110,100 | 93,150 | 5,031 | 243,420 | 12,805 |
| Lines: | | | | | | |
| Catfish and wolffish | 7,364 | 235 | | | | |
| Cod—Fresh | 3,012,246 | 94,045 | 174,325 | 10,575 | 155,928 | 12,592 |
| Cusk—Fresh | 12,295 | 382 | | | | |
| Flounders | 12,178 | 434 | | | | |
| Haddock—Fresh | 5,224,160 | 151,401 | | | 64,000 | 4,480 |
| Hake—Fresh | 207,258 | 7,232 | 350 | 25 | 15,000 | 1,500 |
| Halibut—Fresh | 9,107 | 2,681 | 20,000 | 5,000 | | |
| Pollock—Fresh | 229,186 | 4,895 | | | | |
| Rosefish | 305 | 9 | | | | |
| Tautog | | | 4,125 | 460 | | |
| Tilefish | | | 38,000 | 1,330 | | |
| Spawn | 37,107 | 1,601 | | | | |
| Total | 8,751,206 | 262,915 | 236,800 | 17,380 | 234,928 | 18,572 |
| Seines: | | | | | | |
| Butterfish | 248 | 29 | | | | |
| Cod | 12,371 | 358 | | | | |
| Cusk | 1,030 | 21 | | | | |
| Flounders | 4,668 | 164 | | | | |
| Haddock | 2,990 | 83 | | | | |
| Hake | 5,450 | 202 | | | | |
| Herring | 513,600 | 9,158 | | | | |
| Mackerel, fresh | 1,616,538 | 126,082 | 127,500 | 13,750 | 37,500 | 4,950 |
| Pollock | 53,470 | 1,579 | | | | |
| Smelt | 257 | 38 | | | | |
| Total | 2,210,622 | 137,714 | 127,500 | 13,750 | 37,500 | 4,950 |

YIELD OF VESSEL FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Barnstable. | | Bristol. | | Dukes. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Gill nets: | | | | | | |
| Mackerel | 248, 748 | $27, 397 | 92, 900 | $7, 890 | 218, 330 | $27, 890 |
| Total | 248, 748 | 27, 397 | 92, 900 | 7, 890 | 218, 330 | 27, 890 |
| Harpoons: Swordfish | 112, 935 | 20, 860 | 106, 741 | 22, 265 | 106, 038 | 23, 120 |
| Whaling gear: | | | | | | |
| Ambergris | 30 | 5, 000 | | | | |
| Sperm oil | 678, 375 | 92, 450 | 867, 038 | 125, 661 | | |
| Total | 678, 405 | 97, 450 | 867, 038 | 125, 661 | | |
| Lobster pots: Lobsters | 1, 200 | 400 | 2, 740 | 685 | 18, 682 | 3, 228 |
| Dredges: | | | | | | |
| Clams, hard | 4, 800 | 1, 200 | | | | |
| Oysters— | | | | | | |
| Market, private | 356, 685 | 142, 040 | 21, 000 | 5, 250 | | |
| Seed, private | 17, 290 | 1, 482 | | | | |
| Scallops | 68, 610 | 22, 375 | | | 2, 400 | 1, 000 |
| Total | 447, 385 | 167, 097 | 21, 000 | 5, 250 | 2, 400 | 1, 000 |
| Tongs and rakes: Clams, hard | | | 2, 800 | 1, 050 | | |
| Grand total | 15, 341, 301 | 823, 933 | 1, 550, 669 | 198, 962 | 861, 298 | 91, 565 |

| Apparatus and species. | Essex. | | Nantucket. | | Plymouth. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls: | | | | | | |
| Butterfish | 330 | $23 | | | | |
| Catfish and wolffish | 4, 616 | 312 | | | | |
| Cod— | | | | | | |
| Fresh | 2, 494, 530 | 107, 285 | 41, 000 | $2, 050 | | |
| Salted | 40, 000 | 2, 200 | | | | |
| Cusk— | | | | | | |
| Fresh | 24, 765 | 892 | | | | |
| Salted | 15, 000 | 675 | | | | |
| Flounders | 1, 179, 280 | 47, 147 | 336, 000 | 26, 880 | | |
| Haddock— | | | | | | |
| Fresh | 8, 326, 644 | 234, 134 | 1, 000 | 50 | | |
| Salted | 194, 000 | 6, 790 | | | | |
| Hake | 32, 658 | 1, 338 | | | | |
| Halibut | 13, 622 | 2, 316 | | | | |
| Hallock— | | | | | | |
| Fresh | 443, 280 | 10, 638 | | | | |
| Salted | 14, 045 | 456 | | | | |
| Rosefish | 9, 140 | 229 | | | | |
| Whiting | 445 | 4 | | | | |
| Total | 12, 792, 355 | 414, 439 | 378, 000 | 28, 980 | | |
| Lines: | | | | | | |
| Catfish and wolffish | 42, 237 | 1, 136 | | | | |
| Cod— | | | | | | |
| Fresh | 34, 344, 909 | 1, 479, 211 | | | | |
| Salted | 3, 097, 905 | 160, 252 | | | | |
| Cush— | | | | | | |
| Fresh | 821, 692 | 28, 627 | | | | |
| Salted | 1, 870 | 84 | | | | |
| Flounders | 6, 016 | 213 | | | | |
| Haddock— | | | | | | |
| Fresh | 14, 653, 310 | 410, 530 | | | | |
| Salted | 179, 574 | 10, 206 | | | | |
| Hake— | | | | | | |
| Fresh | 1, 258, 021 | 50, 721 | | | | |
| Salted | 29, 095 | 1, 307 | | | | |
| Halibut— | | | | | | |
| Fresh | 1, 416, 132 | 245, 904 | | | | |
| Salted | 8, 045 | 1, 060 | | | | |
| Pollock— | | | | | | |
| Fresh | 1, 503, 661 | 36, 792 | | | | |
| Salted | 27, 258 | 883 | | | | |
| Rosefish | 3, 470 | 124 | | | | |
| Sharks | 1, 118 | 28 | | | | |
| Skates | 20 | 1 | | | | |

YIELD OF VESSEL FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Essex. | | Nantucket. | | Plymouth. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Lines—Continued. | | | | | | |
| Tilefish | 116,670 | $7,000 | | | | |
| Livers | 2,225 | 38 | | | | |
| Spawn | 54,750 | 3,255 | | | | |
| Total | 57,567,978 | 2,437,372 | | | | |
| Seines: | | | | | | |
| Bonito | 300 | 30 | | | | |
| Butterfish | 40 | 4 | | | | |
| Cod | 5,900 | 254 | | | | |
| Haddock | 1,025 | 29 | | | | |
| Hake | 3,318 | 136 | | | | |
| Herring | 556,112 | 6,105 | | | | |
| Mackerel— | | | | | | |
| Fresh | 4,788,267 | 400,778 | 2,000 | $200 | | |
| Salted | 1,249,062 | 109,948 | | | | |
| Pollock | 2,095,253 | 46,863 | | | | |
| Shad | 822 | 138 | | | | |
| Sharks | 180 | 11 | | | | |
| Spawn | 1,100 | 58 | | | | |
| Total | 8,701,379 | 564,354 | 2,000 | 200 | | |
| Gill nets: | | | | | | |
| Bonito | 280 | 15 | | | | |
| Butterfish | 1,060 | 58 | | | | |
| Cod | 1,241,606 | 50,195 | | | | |
| Haddock | 2,019,379 | 55,729 | | | | |
| Hake | 194,641 | 7,988 | | | | |
| Mackerel | 1,391,665 | 181,983 | 24,000 | 2,400 | | |
| Pollock | 9,217,089 | 229,255 | | | | |
| Rosefish | 825 | 33 | | | | |
| Shad | 7,800 | 153 | | | | |
| Sharks | 100 | 1 | | | | |
| Skates | 30 | 1 | | | | |
| Shrimp | 300 | 39 | | | | |
| Livers | 195,650 | 3,053 | | | | |
| Spawn | 30 | 1 | | | | |
| Total | 14,270,455 | 528,504 | 24,000 | 2,400 | | |
| Harpoons: Swordfish | 275,502 | 64,951 | 1,300 | 214 | | |
| Dredges: | | | | | | |
| Clams, hard | | | 132,000 | 39,050 | | |
| Scallops | | | 8,700 | 3,500 | 4,680 | $1,320 |
| Total | | | 140,700 | 42,550 | 4,680 | 1,320 |
| Tongs and rakes: Clams, hard | | | 4,800 | 1,800 | | |
| Grand total | 93,607,669 | 4,009,620 | 550,800 | 76,144 | 4,680 | 1,320 |

| Apparatus and species. | Suffolk. | | Total. | |
|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls: | | | | |
| Butterfish | 21,549 | $1,782 | 21,879 | $1,805 |
| Catfish and wolffish | 62,671 | 1,647 | 67,287 | 1,959 |
| Cod— | | | | |
| Fresh | 2,453,117 | 105,491 | 4,990,557 | 214,911 |
| Salted | | | 40,000 | 2,200 |
| Cusk— | | | | |
| Fresh | 6,550 | 236 | 31,315 | 1,128 |
| Salted | | | 15,000 | 675 |
| Eels | 490 | 7 | 490 | 7 |
| Flounders | 1,062,262 | 47,269 | 5,801,897 | 248,923 |
| Haddock— | | | | |
| Fresh | 34,057,878 | 953,728 | 42,385,742 | 1,187,925 |
| Salted | | | 194,000 | 6,790 |
| Hake | 397,579 | 16,298 | 430,702 | 17,643 |
| Halibut | 53,627 | 9,116 | 67,249 | 11,432 |
| Pollock— | | | | |
| Fresh | 311,442 | 7,475 | 754,842 | 18,117 |
| Salted | | | 14,045 | 456 |
| Rosefish | 2,405 | 90 | 11,545 | 319 |
| Shad | 7 | 1 | 7 | 1 |
| Sharks | 990 | 52 | 990 | 52 |

YIELD OF VESSEL FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Suffolk. | | Total. | |
|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls—Continued. | | | | |
| Skates | 1,810 | $39 | 1,810 | $9 |
| Sturgeon | 1,335 | 264 | 1,335 | 264 |
| Whiting | | | 445 | 4 |
| Scallops | | | 300 | 200 |
| Total | 38,433,712 | 1,143,495 | 54,831,437 | 1,714,850 |
| Lines: | | | | |
| Catfish and wolffish | 15,509 | 454 | 65,110 | 1,825 |
| Cod— | | | | |
| Fresh | 15,189,656 | 653,053 | 52,877,064 | 2,249,476 |
| Salted | | | 3,097,905 | 160,252 |
| Cusk— | | | | |
| Fresh | 358,353 | 12,890 | 1,192,340 | 41,899 |
| Salted | | | 1,870 | 84 |
| Flounders | 15,909 | 646 | 34,103 | 1,293 |
| Haddock— | | | | |
| Fresh | 10,467,834 | 293,006 | 30,409,304 | 859,417 |
| Salted | | | 179,574 | 10,206 |
| Hake— | | | | |
| Fresh | 884,876 | 36,202 | 2,365,505 | 95,680 |
| Salted | | | 29,095 | 1,307 |
| Halibut— | | | | |
| Fresh | 178,280 | 28,231 | 1,623,519 | 281,816 |
| Salted | | | 8,045 | 1,060 |
| Pollock— | | | | |
| Fresh | 1,556,431 | 37,447 | 3,289,278 | 79,134 |
| Salted | | | 27,258 | 883 |
| Rosefish | 11,078 | 430 | 14,853 | 563 |
| Sharks | 115 | 2 | 1,233 | 30 |
| Skates | | | 20 | 1 |
| Tautog | | | 4,125 | 450 |
| Tilefish | 33,510 | 1,473 | 188,180 | 9,803 |
| Livers | 2,250 | 51 | 4,475 | 89 |
| Spawn | 39,396 | 2,890 | 131,253 | 7,746 |
| Total | 28,753,197 | 1,066,775 | 95,544,109 | 3,803,014 |
| Seines: | | | | |
| Alewives | 800 | 8 | 800 | 8 |
| Bonito | 200 | 12 | 500 | 42 |
| Butterfish | 905 | 101 | 1,193 | 134 |
| Cod | 2,654 | 115 | 20,925 | 727 |
| Cusk | | | 1,030 | 21 |
| Flounders | | | 4,668 | 164 |
| Haddock | | | 4,015 | 112 |
| Hake | 670 | 27 | 9,438 | 365 |
| Herring | | | 1,069,712 | 15,263 |
| Mackerel— | | | | |
| Fresh | 380,214 | 44,464 | 6,952,019 | 590,224 |
| Salted | | | 1,249,062 | 109,948 |
| Pollock | 644,845 | 15,476 | 2,793,568 | 63,918 |
| Shad | 10,000 | 600 | 10,822 | 738 |
| Sharks | | | 180 | 11 |
| Smelt | | | 257 | 38 |
| Spawn | | | 1,100 | 58 |
| Total | 1,040,288 | 60,803 | 12,119,289 | 781,771 |
| Gill nets: | | | | |
| Bonito | | | 280 | 15 |
| Butterfish | | | 1,060 | 58 |
| Cod | 129,075 | 5,550 | 1,370,681 | 55,745 |
| Haddock | 384,286 | 10,760 | 2,403,665 | 66,489 |
| Hake | 15,090 | 619 | 209,731 | 8,607 |
| Mackerel | 273,092 | 32,296 | 2,248,735 | 279,856 |
| Pollock | 1,310,981 | 31,464 | 10,528,070 | 260,719 |
| Rosefish | | | 825 | 33 |
| Shad | | | 7,800 | 153 |
| Sharks | | | 100 | 1 |
| Skates | | | 30 | 1 |
| Shrimp | | | 300 | 39 |
| Livers | 28,300 | 426 | 223,950 | 3,479 |
| Spawn | | | 30 | 1 |
| Total | 2,140,824 | 81,115 | 16,995,257 | 675,196 |
| Harpoons: Swordfish | 91,313 | 20,700 | 693,829 | 152,110 |

YIELD OF VESSEL FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Suffolk. | | Total. | |
|---|---|---|---|---|
| | Pounds. | Value. | Pounds. | Value. |
| Whaling gear: | | | | |
| Ambergris | | | 30 | $5,000 |
| Sperm oil | | | 1,545,413 | 218,111 |
| Total | | | 1,545,443 | 223,111 |
| Lobster pots: Lobsters | | | 22,622 | 4,313 |
| Dredges: | | | | |
| Clams, hard | | | 136,800 | 40,250 |
| Oysters— | | | | |
| Market, private | | | 377,685 | 147,290 |
| Seed, private | | | 17,290 | 1,482 |
| Scallops | | | 84,390 | 28,195 |
| Total | | | 616,165 | 217,217 |
| Tongs and rakes: Clams, hard | | | 7,600 | 2,850 |
| Grand total | 70,459,334 | $2,372,888 | 182,375,751 | 7,574,432 |

YIELD OF SHORE FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES.

BY POUND NETS, TRAPS, WEIRS, DREDGES, OTTER TRAWLS, GILL NETS DIP NETS, AND SEINES.

| Apparatus and species. | Barnstable. | | Bristol. | | Dukes. | | Essex. | |
|---|---|---|---|---|---|---|---|---|
| Pound nets, trap nets, and weirs: | | | | | | | | |
| Alewives— | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Fresh | 194,566 | $3,484 | 77,795 | $1,540 | 96,050 | $1,706 | 17,315 | $244 |
| Salted | 35,000 | 1,750 | | | 140,000 | 6,300 | | |
| Bluefish | 3,932 | 696 | | | 121 | 24 | 668 | 71 |
| Bonito | 33,956 | 2,549 | 40 | 4 | 95,461 | 9,929 | 90 | 9 |
| Butterfish | 176,061 | 14,966 | 11,700 | 850 | 56,899 | 5,853 | 19,039 | 2,041 |
| Catfish and wolffish | | | | | | | 14 | 1 |
| Cod | 113,668 | 4,822 | 795 | 37 | 81 | 6 | 173,006 | 5,400 |
| Cunners | | | | | | | 2,809 | 85 |
| Eels | 3,850 | 455 | 4,500 | 450 | | | | |
| Flounders | 161,086 | 7,828 | 19,753 | 1,017 | 13,043 | 1,162 | 1,805 | 58 |
| Frigate mackerel | | | | | 61,361 | 1,862 | | |
| Grayfish | 1,000 | 10 | 62,667 | 174 | | | | |
| Goosefish | | | 2,500 | 7 | | | | |
| Haddock | 2,631 | 13 | | | 554 | 33 | 2,236 | 63 |
| Hake | 395 | 4 | 183 | 3 | 86 | 1 | 4,810 | 110 |
| Herring | 5,931,481 | 71,121 | 88,765 | 1,373 | 25 | 3 | 1,321,184 | 17,285 |
| Hickory shad | 11,650 | 780 | 1,150 | 50 | | | | |
| Kingfish | | | 72 | 18 | | | | |
| Launce | 3,800 | 38 | | | | | | |
| Mackerel | 1,419,313 | 148,182 | 28,605 | 2,871 | 55,007 | 5,035 | 122,886 | 13,034 |
| Menhaden | 69,303 | 1,605 | 46,516 | 272 | 5,400 | 54 | | |
| Perch, white | | | | | 6,000 | 900 | | |
| Pollock | 103,725 | 3,135 | 20 | 1 | 2,371 | 113 | 185,792 | 3,243 |
| Pompano | 14 | 2 | | | | | | |
| Round herring | 941 | 19 | | | | | | |
| Sculpin | | | 6,000 | 15 | | | | |
| Scup | 8,634 | 494 | 52 | 6 | 63,578 | 4,393 | | |
| Sea bass | | | 2,289 | 50 | 3,865 | 532 | 18 | 2 |
| Sea robin | | | 400 | 1 | | | | |
| Shad | 5,645 | 1,553 | 54 | 17 | 37 | 7 | | |
| Sharks | 11,300 | 183 | 3,175 | 71 | | | 435 | 47 |
| Skates and rays | | | 93,649 | 381 | | | 3,000 | 75 |
| Smelt | | | 97 | 13 | | | | |
| Squeteague | 613 | 74 | 962 | 151 | 4,202 | 683 | | |
| Striped bass | 287 | 110 | 605 | 103 | 59 | 13 | | |
| Sturgeon | 5,183 | 1,191 | | | | | 180 | 22 |
| Sturgeon caviar | 30 | 85 | | | | | | |
| Sturgeon roe | 175 | 150 | | | | | | |
| Tautog | 23,627 | 1,362 | 13,519 | 1,316 | 222 | 19 | 6 | 13 |
| Tomcod | 2,200 | 6 | 2,390 | 93 | | | 158 | 6 |
| Tuna | 37,048 | 2,716 | 53 | 2 | | | | |
| Whiting | 11,173,383 | 135,485 | 57,709 | 948 | 62,727 | 365 | 5,000 | 750 |
| | | | | | | | 2,563,786 | 11,339 |

YIELD OF SHORE FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

BY POUND NETS, TRAPS, WEIRS, DREDGES, OTTER TRAWLS, GILL NETS, DIP NETS, AND SEINES—Continued.

| Apparatus and species. | Barnstable. | | Bristol. | | Dukes. | | Essex. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Pound nets, trap nets, and weirs—Continued. | | | | | | | | |
| Other species | 9, 500 | $100 | 8, 411 | $388 | 20, 321 | $1, 629 | | |
| Squid | 5, 837, 988 | 104, 364 | 141, 129 | 2, 184 | 16, 459 | 253 | 121, 831 | $1, 671 |
| Porpoise | 750 | 15 | | | | | | |
| Total | 25, 382, 735 | 509, 347 | 675, 555 | 14, 406 | 703, 929 | 40, 875 | 4, 546, 068 | 55, 569 |
| Dredges: | | | | | | | | |
| Clams, hard | 4, 800 | 1, 800 | | | | | | |
| Oysters, market, private | 138, 915 | 52, 237 | | | | | | |
| Scallops | 397, 656 | 114, 328 | 42, 000 | 14, 000 | 298, 620 | 87, 325 | | |
| Total | 541, 371 | 168, 365 | 42, 000 | 14, 000 | 298, 620 | 87, 325 | | |
| Otter trawls: | | | | | | | | |
| Cod | | | | | | | 450 | 19 |
| Flounders | 891, 315 | 41, 712 | 69, 000 | 2, 800 | 639, 275 | 44, 490 | 713, 567 | 30, 798 |
| Rosefish | | | | | | | 6, 715 | 101 |
| Scup | | | | | 1, 000 | 180 | | |
| Sea bass | | | | | 6, 000 | 600 | | |
| Total | 891, 315 | 41, 712 | 69, 000 | 2, 800 | 646, 275 | 45, 270 | 720, 732 | 30, 918 |
| Gill nets: | | | | | | | | |
| Butterfish | 247 | 44 | | | | | | |
| Cod | | | | | | | 149, 788 | 7, 702 |
| Flounders | | | | | | | 4, 500 | 135 |
| Haddock | | | | | | | 18, 000 | 810 |
| Herring | | | | | | | 7, 200 | 205 |
| Mackerel | 266, 926 | 30, 304 | 10, 500 | 1, 500 | 13, 500 | 2, 125 | 362, 428 | 35, 506 |
| Pollock | | | | | | | 1, 800 | 54 |
| Sharks | | | | | | | 5, 196 | 204 |
| Skates | | | | | | | 2, 000 | 10 |
| Sturgeon | | | | | | | 900 | 81 |
| Total | 267, 173 | 30, 348 | 10, 500 | 1, 500 | 13, 500 | 2, 125 | 551, 812 | 44, 707 |
| Dip nets: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | 14, 400 | 396 | | | | | | |
| Salted | 240, 000 | 8, 400 | | | | | | |
| Flounders | | | | | | | 500 | 25 |
| Herring | | | | | | | 152, 950 | 4, 268 |
| Perch, yellow | | | | | | | 500 | 25 |
| Scallops | 34, 950 | 8, 800 | | | | | | |
| Total | 289, 350 | 17, 596 | | | | | 153, 950 | 4, 318 |
| Seines: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | 63, 000 | 1, 279 | 27, 000 | 535 | 455, 100 | 12, 435 | 12, 500 | 100 |
| Salted | 364, 600 | 19, 190 | 60, 534 | 2, 220 | | | | |
| Smoked | 2. 000 | 150 | | | | | | |
| Butterfish | 700 | 105 | | | | | | |
| Cod | 3, 000 | 120 | | | | | | |
| Eels | | | | | 21, 000 | 1, 200 | 71, 270 | 1, 981 |
| Herring | 360 | 5 | | | | | 203, 662 | 1, 762 |
| Launce | 64, 000 | 800 | | | | | | |
| Mackerel | 43, 100 | 5, 617 | 235 | 40 | 10, 000 | 1, 200 | 288, 211 | 30, 503 |
| Minnows | 1, 000 | 125 | | | | | | |
| Pollock | | | | | | | 159, 036 | 3, 817 |
| Shad | | | 298 | 68 | | | 24, 309 | 959 |
| Shrimp | 3, 100 | 1, 550 | | | | | | |
| Alewife scales | 3, 000 | 1, 500 | | | | | | |
| Total | 547, 860 | 30, 441 | 88, 067 | 2, 863 | 486, 100 | 14, 835 | 758, 988 | 39, 122 |

YIELD OF SHORE FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

BY POUND NETS, TRAPS, WEIRS, DREDGES, OTTER TRAWLS, GILL NETS, DIP NETS, AND SEINES—Continued.

| Apparatus and species. | Nantucket. | | Plymouth. | | Suffolk. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Pound nets, trap nets, and weirs: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | 16,400 | $164 | 80,050 | $674 | | | 482,176 | $7,812 |
| Salted | 27,000 | 1,080 | 230,000 | 9,775 | | | 432,000 | 18,905 |
| Bluefish | | | | | | | 4,721 | 791 |
| Bonito | 59,400 | 5,470 | | | | | 188,947 | 17,961 |
| Butterfish | | | 4,775 | 517 | | | 268,474 | 24,227 |
| Catfish and wolffish | | | | | | | 14 | 1 |
| Cod | 1,400 | 70 | | | | | 288,950 | 10,335 |
| Cunners | | | | | | | 2,809 | 85 |
| Eels | | | | | | | 8,350 | 905 |
| Flounders | 4,210 | 530 | | | | | 199,897 | 10,595 |
| Frigate mackerel | | | | | | | 61,361 | 1,862 |
| Grayfish | | | | | | | 63,667 | 184 |
| Goosefish | | | | | | | 2,500 | 7 |
| Haddock | | | | | | | 5,421 | 109 |
| Hake | | | | | | | 5,474 | 118 |
| Herring | 2,000 | 300 | 406,600 | 4,464 | | | 7,750,055 | 94,546 |
| Hickory shad | | | | | | | 12,800 | 830 |
| Kingfish | | | | | | | 72 | 18 |
| Launce | | | | | | | 3,800 | 38 |
| Mackerel | 63,700 | 5,325 | 8,687 | 803 | | | 1,698,198 | 175,250 |
| Menhaden | | | | | | | 121,219 | 1,931 |
| Perch, white | | | | | | | 6,000 | 900 |
| Pollock | 900 | 36 | | | | | 292,808 | 6,528 |
| Pompano | | | | | | | 14 | 2 |
| Round herring | | | | | | | 941 | 19 |
| Sculpin | | | | | | | 6,000 | 15 |
| Scup | 2,450 | 245 | | | | | 74,714 | 5,138 |
| Sea bass | 2,000 | 300 | | | | | 8,172 | 884 |
| Sea robin | | | | | | | 400 | 1 |
| Shad | 12,800 | 750 | | | | | 18,971 | 2,374 |
| Sharks | | | | | | | 17,475 | 329 |
| Skates and rays | | | | | | | 93,649 | 381 |
| Smelt | | | | | | | 97 | 13 |
| Squeteague | | | | | | | 5,777 | 908 |
| Striped bass | | | | | | | 951 | 226 |
| Sturgeon | | | | | | | 5,363 | 1,213 |
| Sturgeon caviar | | | | | | | 30 | 85 |
| Sturgeon roe | | | | | | | 181 | 163 |
| Tautog | | | | | | | 37,526 | 2,703 |
| Tomcod | | | | | | | 4,590 | 99 |
| Tuna | | | | | | | 42,101 | 3,468 |
| Whiting | 53,600 | 660 | 7,000 | 53 | | | 13,918,205 | 148,850 |
| Other species | | | | | | | 38,232 | 2,117 |
| Squid | 3,350 | 83 | 13,800 | 309 | | | 6,134,557 | 108,864 |
| Porpoise | | | | | | | 750 | 15 |
| Alewife scales | | | 6,400 | 3,200 | | | 6,400 | 3,200 |
| Total | 249,210 | 15,013 | 757,312 | 19,795 | | | 32,314,809 | 655,005 |
| Dredges: | | | | | | | | |
| Clams, hard | | | | | | | 4,800 | 1,800 |
| Oysters— | | | | | | | | |
| Market— | | | | | | | | |
| Public | | | 175 | 63 | | | 175 | 63 |
| Private | | | 16,275 | 4,887 | | | 155,190 | 57,124 |
| Seed— | | | | | | | | |
| Public | | | 23,100 | 1,320 | | | 23,100 | 1,320 |
| Private | | | 11,200 | 640 | | | 11,200 | 640 |
| Scallops | 94,752 | 42,730 | 379,770 | 143,784 | | | 1,212,798 | 402,167 |
| Total | 94,752 | 42,730 | 430,520 | 150,694 | | | 1,407,263 | 463,114 |
| Otter trawls: | | | | | | | | |
| Catfish and wolffish | | | | | 125 | $5 | 125 | 5 |
| Cod | 20,000 | 900 | | | 7,219 | 310 | 27,669 | 1,229 |
| Flounders | 271,000 | 21,680 | 25,000 | 1,000 | 1,082,298 | 46,252 | 3,691,455 | 188,732 |
| Haddock | | | | | 13,481 | 377 | 13,481 | 377 |
| Hake | | | | | 3,958 | 172 | 3,958 | 172 |
| Pollock | | | | | 257 | 6 | 257 | 6 |
| Rosefish | | | | | 2,835 | 108 | 9,550 | 209 |
| Scup | | | | | | | 1,000 | 180 |
| Sea bass | | | | | | | 6,000 | 600 |
| Total | 291,000 | 22,580 | 25,000 | 1,000 | 1,110,173 | 47,230 | 3,753,495 | 191,510 |

YIELD OF SHORE FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

BY POUND NETS, TRAPS, WEIRS, DREDGES, OTTER TRAWLS, GILL NETS, DIP NETS, AND SEINES—Continued.

| Apparatus and species. | Nantucket. | | Plymouth. | | Suffolk. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Gill nets: | | | | | | | | |
| Butterfish | | | | | | | 247 | $44 |
| Cod | | | 700 | $38 | | | 150,488 | 7,740 |
| Flounders | | | | | | | 4,500 | 135 |
| Haddock | | | | | | | 18,000 | 810 |
| Herring | | | 4,000 | 55 | | | 11,200 | 260 |
| Mackerel | | | 30,000 | 4,500 | 325,724 | $54,304 | 1,009,078 | 128,239 |
| Pollock | | | | | | | 1,800 | 54 |
| Shad | | | | | 130 | 16 | 130 | 16 |
| Sharks | | | | | | | 5,196 | 204 |
| Skates | | | | | | | 2,000 | 10 |
| Sturgeon | 4,500 | $1,800 | | | | | 5,400 | 1,881 |
| Sturgeon caviar | 120 | 271 | | | | | 120 | 271 |
| Tuna | | | 800 | 80 | | | 800 | 80 |
| Total | 4,620 | 2,071 | 35,500 | 4,673 | 325,854 | 54,320 | 1,208,959 | 139,744 |
| Dip nets: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | | | | | | | 14,400 | 396 |
| Salted | | | | | | | 240,000 | 8,400 |
| Flounders | | | | | | | 500 | 25 |
| Herring | | | 1,400,000 | 7,000 | 115,670 | 3,070 | 1,668,620 | 14,338 |
| Perch, yellow | | | | | | | 500 | 25 |
| Crabs, soft | | | 266 | 40 | | | 266 | 40 |
| Scallops | | | | | | | 34,950 | 8,800 |
| Total | | | 1,400,266 | 7,040 | 115,670 | 3,070 | 1,959,236 | 32,024 |
| Seines: | | | | | | | | |
| Alewives— | | | | | | | | |
| Fresh | | | 1,000 | 30 | | | 558,600 | 14,379 |
| Salted | | | | | | | 425,134 | 21,410 |
| Smoked | | | | | | | 2,000 | 150 |
| Butterfish | | | | | 31 | 4 | 731 | 109 |
| Cod | | | | | | | 3,000 | 120 |
| Eels | | | | | | | 92,270 | 3,181 |
| Herring | | | | | 107,800 | 3,234 | 311,822 | 5,001 |
| Launce | | | | | | | 64,000 | 800 |
| Mackerel | | | 10,200 | 688 | | | 351,746 | 38,048 |
| Menhaden | | | 40,000 | 300 | | | 40,000 | 300 |
| Minnows | | | | | | | 1,000 | 125 |
| Pollock | | | | | | | 159,036 | 3,817 |
| Shad | | | | | | | 24,607 | 1,027 |
| Shrimp | | | | | | | 3,100 | 1,550 |
| Alewife scales | | | | | | | 3,000 | 1,500 |
| Total | | | 51,200 | 1,018 | 107,831 | 3,238 | 2,040,046 | 91,517 |

BY LINES, TONGS, RAKES, HOES, FORKS, EEL POTS, LOBSTER POTS, AND SPEARS.

| Apparatus and species. | Barnstable. | | Bristol. | | Dukes. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Lines: | | | | | | |
| Butterfish | 3,244 | $433 | | | | |
| Catfish and wolffish | 13,612 | 95 | | | | |
| Cod— | | | | | | |
| Fresh | 2,989,827 | 129,802 | 1,100 | $60 | 45,250 | $1,715 |
| Salted | 6,500 | 450 | | | | |
| Cusk | 3,103 | 33 | | | | |
| Eels | | | | | | |
| Flounders | | | 625 | 100 | | |
| Haddock | 14,790 | 1,047 | 3,170 | 260 | 17,500 | 1,000 |
| Hake | 635,916 | 20,846 | | | 1,000 | 40 |
| Halibut | 431,414 | 8,396 | 2,150 | 150 | | |
| Mackerel | 10,211 | 1,704 | | | | |
| Pollock—Fresh | 2,226 | 197 | 3,705 | 475 | 1,000 | 120 |
| Scup | 856,526 | 20,140 | | | 43,500 | 1,285 |
| Sea bass | 1,710 | 265 | | | 700 | 53 |
| Sharks | 345 | 110 | | | 500 | 50 |
| Skates | 303,225 | 3,037 | | | | |
| Striped bass | 885 | 17 | | | | |
| Tautog | 20 | 5 | | | | |
| Livers | 11,800 | 1,227 | 28,725 | 3,655 | 600 | 30 |
| | 150 | 1 | | | | |
| Total | 5,285,504 | 187,805 | 39,475 | 4,700 | 110,050 | 4,293 |

YIELD OF SHORE FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

BY LINES, TONGS, RAKES, HOES, FORKS, EEL POTS, LOBSTER POTS, AND SPEARS—Continued.

| Apparatus and species. | Barnstable. | | Bristol. | | Dukes. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Tongs, rakes, hoes, and forks: | | | | | | |
| Clams— | | | | | | |
| Hard— | | | | | | |
| Public | 281,520 | $95,523 | 192,560 | $62,550 | 79,120 | $27,300 |
| Private | 22,640 | 12,425 | | | | |
| Soft— | | | | | | |
| Public | 136,000 | 13,189 | 6,000 | 900 | 5,000 | 875 |
| Private | 125,000 | 10,750 | | | | |
| Razor | 23,300 | 3,500 | | | | |
| Oysters, market— | | | | | | |
| Public | 875 | 150 | 1,120 | 400 | | |
| Private | 228,235 | 71,120 | 945 | 130 | | |
| Scallops | 48 | 20 | | | | |
| Total | 817,618 | 206,677 | 200,625 | 63,980 | 84,120 | 28,175 |
| Eel pots: Eels | 62,443 | 7,874 | 2,253 | 180 | 18,500 | 2,305 |
| Lobster pots: Lobsters | 98,220 | 26,588 | 253,878 | 53,717 | 591,815 | 101,382 |
| Spears: | | | | | | |
| Eels | 13,235 | 2,006 | 6,800 | 1,200 | | |
| Flounders | 6,900 | 575 | | | | |
| Total | 20,135 | 2,581 | 6,800 | 1,200 | | |

| Apparatus and species. | Essex. | | Nantucket. | | Norfolk. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Lines: | | | | | | |
| Catfish and wolffish | 17,369 | $542 | | | | |
| Cod— | | | | | | |
| Fresh | 1,039,538 | 45,643 | 130,000 | $5,100 | 22,000 | $1,760 |
| Salted | | | 30,000 | 3,600 | | |
| Cusk | 226,711 | 8,162 | | | | |
| Eels | 1,790 | 225 | | | | |
| Flounders | 266,058 | 15,410 | | | 8,000 | 800 |
| Haddock | 448,187 | 13,504 | 15,100 | 458 | 500 | 40 |
| Hake | 463,722 | 19,308 | | | | |
| Halibut | 6,081 | 1,034 | | | | |
| Mackerel | 425 | 52 | | | | |
| Pollock— | | | | | | |
| Fresh | 350,848 | 10,580 | 27,500 | 1,450 | 1,000 | 80 |
| Salted | 8,850 | 435 | | | | |
| Skates | 1,460 | 44 | | | | |
| Smelt | 7,796 | 1,864 | | | 22,200 | 6,425 |
| Tautog | | | | | 2,000 | 180 |
| Tongues | 600 | 12 | | | | |
| Spawn | 1,582 | 87 | | | | |
| Livers | 85,000 | 1,275 | | | | |
| Total | 2,926,017 | 118,177 | 202,600 | 10,608 | 55,700 | 9,285 |
| Tongs, rakes, hoes, and forks: | | | | | | |
| Clams— | | | | | | |
| Hard—Public | 600 | 75 | 111,144 | 27,986 | | |
| Soft—Public | 460,060 | 58,206 | | | 63,470 | 9,620 |
| Irish moss | | | | | 25,500 | 1,912 |
| Total | 460,660 | 58,281 | 111,144 | 27,986 | 88,970 | 11,532 |
| Eel pots: Eels | 32,025 | 6,190 | 30,000 | 4,500 | 1,000 | 130 |
| Lobster pots: | | | | | | |
| Lobsters | 677,387 | 161,249 | 19,446 | 8,759 | 77,054 | 19,390 |
| Crabs, hard | 18,167 | 395 | | | 18,475 | 554 |
| Total | 695,554 | 161,644 | 19,446 | 8,759 | 95,529 | 19,944 |
| Spears: Eels | 8,906 | 1,781 | | | 2,000 | 400 |

YIELD OF SHORE FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

BY LINES, TONGS, RAKES, HOES, FORKS, EEL POTS, LOBSTER POTS, AND SPEARS—Continued.

| Apparatus and species. | Plymouth. | | Suffolk. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Lines: | | | | | | |
| Butterfish | | | | | 3,244 | $433 |
| Catfish and wolffish | | | 127,671 | $$4,792 | 158,652 | 5,429 |
| Cod— | | | | | | |
| Fresh | 181,413 | $7,888 | 2,182,458 | 93,840 | 6,591,586 | 285,808 |
| Salted | 1,000 | 200 | | | 37,500 | 4,250 |
| Cusk | 3,000 | 84 | 103,838 | 3,741 | 336,652 | 12,020 |
| Eels | | | | | 2,415 | 325 |
| Flounders | 17,700 | 994 | 188,355 | 8,716 | 515,573 | 28,227 |
| Haddock | 4,750 | 183 | 1,459,729 | 40,905 | 2,565,182 | 75,976 |
| Hake | 3,100 | 125 | 141,243 | 5,789 | 1,041,629 | 33,768 |
| Halibut | | | 1,449 | 246 | 17,741 | 2,984 |
| Mackerel | | | | | 7,356 | 844 |
| Pollock— | | | | | | |
| Fresh | 15,600 | 474 | 77,755 | 1,867 | 1,372,729 | 35,876 |
| Salted | | | | | 8,850 | 435 |
| Scup | 500 | 30 | | | 2,910 | 348 |
| Sea bass | 50 | 5 | | | 895 | 165 |
| Sharks | | | | | 303,225 | 3,037 |
| Skates | | | 500 | 10 | 2,845 | 71 |
| Smelt | 7,500 | 2,025 | 1,300 | 325 | 38,796 | 10,639 |
| Striped bass | | | | | 20 | 5 |
| Tautog | 7,100 | 640 | | | 50,225 | 5,732 |
| Tomcod | | | 1,000 | 50 | 1,000 | 50 |
| Tongues | | | | | 600 | 12 |
| Spawn | | | 12,964 | 944 | 14,546 | 1,031 |
| Livers | | | | | 85,150 | 1,276 |
| Total | 241,713 | 12,648 | 4,298,262 | 161,225 | 13,159,321 | 508,741 |
| Tongs, rakes, hoes, and forks: | | | | | | |
| Clams— | | | | | | |
| Hard— | | | | | | |
| Public | 35,960 | 11,933 | | | 700,904 | 225,367 |
| Private | | | | | 22,640 | 12,425 |
| Soft— | | | | | | |
| Public | 1,146,100 | 122,885 | 246,000 | 26,519 | 2,062,630 | 232,194 |
| Private | | | | | 125,000 | 10,750 |
| Razor | | | | | 23,300 | 3,500 |
| Oysters, market— | | | | | | |
| Public | 3,409 | 770 | | | 5,404 | 1,320 |
| Private | 7,000 | 2,500 | | | 236,180 | 73,750 |
| Scallops | | | | | 48 | 20 |
| Irish moss | 178,700 | 13,115 | | | 204,200 | 15,027 |
| Total | 1,371,169 | 151,203 | 246,000 | 26,519 | 3,380,306 | 574,353 |
| Eel pots: Eels | 9,200 | 1,148 | | | 155,421 | 22,327 |
| Lobster pots: | | | | | | |
| Lobsters | 575,829 | 119,580 | 71,385 | 21,415 | 2,365,014 | 512,080 |
| Crabs, hard | 8,000 | 165 | 1,720,319 | 48,310 | 1,764,961 | 49,424 |
| Total | 583,829 | 119,745 | 1,791,704 | 69,725 | 4,129,975 | 561,504 |
| Spears: | | | | | | |
| Eels | 500 | 55 | | | 31,441 | 5,442 |
| Flounders | | | | | 6,900 | 575 |
| Total | 500 | 55 | | | 38,341 | 6,017 |

YIELD OF SHORE FISHERIES OF MASSACHUSETTS IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

BY BOW NETS, FYKE NETS, HARPOONS, COCKLE TRAPS, AND CUNNER TRAPS.

| Apparatus and species. | Barnstable. | | Bristol. | | Dukes. | | Essex. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Bow nets: Alewives— | | | | | | | | | | |
| Fresh | 41,500 | $475 | | | | | | | 41,500 | $475 |
| Salted | 162,000 | 7,280 | | | | | | | 162,000 | 7,280 |
| Smoked | 37,000 | 2,695 | | | | | | | 37,000 | 2,695 |
| Scales | 1,000 | 500 | | | | | | | 1,000 | 500 |
| Total | 241,500 | 10,950 | | | | | | | 241,500 | 10,950 |
| Fyke nets: | | | | | | | | | | |
| Eels | 33,180 | 6,577 | 10,600 | $950 | 40,000 | $8,000 | | | 83,780 | 15,527 |
| Flounders | | | 3,200 | 181 | | | | | 3,200 | 181 |
| Perch, white | | | 200 | 20 | | | | | 200 | 20 |
| Tomcod | | | 2,300 | 90 | | | | | 2,300 | 90 |
| Total | 33,180 | 6,577 | 16,300 | 1,241 | 40,000 | 8,000 | | | 89,480 | 15,818 |
| Harpoons: Swordfish | | | 2,400 | 600 | 15,500 | 2,620 | | | 17,900 | 3,220 |
| Cockle traps: Cockles | 1,450 | 725 | | | | | 300,000 | $1,350 | 301,450 | 2,075 |
| Cunner traps: Cunners | | | 7,150 | 500 | | | | | 7,150 | 500 |

WITHOUT APPARATUS.

| Species. | Barnstable. | | Plymouth. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Blackfish | 40,000 | $40 | | | 40,000 | $40 |
| Clams, hard | 2,400 | 825 | 800 | $250 | 3,200 | 1,075 |
| Oysters, seed, private | 51,688 | 4,430 | | | 51,688 | 4,430 |
| Cockles | 950 | 300 | 275,000 | 1,050 | 275,950 | 1,350 |
| Total | 95,038 | 5,595 | 275,800 | 1,300 | 370,838 | 6,895 |

INDUSTRIES.

*Wholesale fishery trade.*—In 1919 there were 139 wholesale fishery establishments in Massachusetts, valued at $2,928,405, with a cash capital amounting to $1,522,545, in which 1,468 persons were engaged, to whom $1,790,495 were paid in wages.

Five of these firms engaged in the manufacture of oil and fertilizer incidental to their wholesale business. The quantity of fish oil manufactured amounted to 56,250 gallons, valued at $60,147, and of fertilizer to 324,750 pounds, valued at $2,000.

*Smoked, canned, and by-product industries.*—In the appended table the statistics of the smoked, canned, and by-product industries of Massachusetts in 1919 are shown in detail. The quantity of fish smoked, salted, and pickled amounted to 12,807,782 pounds, valued at $863,927, the principal items being finnan haddie, 4,506,216 pounds, valued at $352,692, and salted and pickled herring, 3,299,950 pounds, valued at $100,530. The pack of canned products amounted to 52,474 cases, valued at $362,926, and the value of the by-products was $1,050,317.

INDUSTRIES OF MASSACHUSETTS IN 1919.

| Item. | Smoked fish, and salted and pickled herring. | | Canned. | | By-products. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Plants | [1] 16 | $694,688 | 6 | $1,513,725 | [2] 12 | $447,389 | 34 | $2,655,802 |
| Cost of materials | | 139,644 | | 654,079 | | | | |
| Cash capital | | 122,500 | | 154,500 | | 122,400 | | 399,400 |
| Persons engaged | 365 | | 1,490 | | 331 | | 2,186 | |
| Wages paid | | 332,979 | | 1,082,065 | | 428,929 | | 1,843,973 |
| MANUFACTURED PRODUCTS. | | | | | | | | |
| Liver and menhaden oil..gallons | | | | | [3] 207,627 | 236,110 | 207,627 | 236,110 |
| Liquid glue..do | | | | | [4] 388,252 | 474,924 | 388,252 | 474,924 |
| Fish scrap and fertilizer...pounds | | | | | 14,895,358 | 339,283 | 14,895,358 | 339,283 |
| Kippered herring, pounds | 233,378 | 28,440 | | | | | 233,378 | 28,440 |
| Finnan haddie, pounds | 4,506,216 | 352,692 | | | | | 4,506,216 | 352,692 |
| Smoked herring: | | | | | | | | |
| Plain and Bismarks.pounds | 3,045,400 | 201,550 | | | | | 3,045,400 | 201,550 |
| Bloaters...do | 1,290,600 | 131,350 | | | | | 1,290,600 | 131,350 |
| Smoked alewives, halibut, salmon, and sharks, pounds | 432,238 | 49,365 | | | | | 432,238 | 49,365 |
| Salted and pickled herring..pounds | 3,299,950 | 100,530 | | | | | 3,299,950 | 100,530 |
| Clams (various sizes).....cases | | | 12,340 | 72,089 | | | 12,340 | 72,089 |
| Clam chowder and clam extract (various sizes).cases | | | 2,384 | 10,824 | | | 2,384 | 10,824 |
| Miscellaneous species of fish (various sizes)..cases | | | [5] 37,750 | 280,013 | | | 37,750 | 280,013 |
| Total | 12,807,782 | 863,927 | 52,474 | 362,926 | | 1,050,317 | | 2,277,170 |

[1] Does not include two plants which are shown under canning industry.
[2] Includes two menhaden plants operated in Connecticut.
[3] Includes small quantities of shark, blackfish, and porpoise oils.
[4] Includes a small quantity of dry glue.
[5] Includes "sardines," cod, haddock, herring, mackerel, whiting, and fish roe.

## FISHERIES OF RHODE ISLAND.

Rhode Island ranked third among the New England States in 1919 in the investment, quantity, and value of its fishery products, and fourth in the number of persons engaged. The number of persons employed was 1,646, of whom 317 were on fishing vessels, 44 on vessels transporting fishery products, 795 in the shore and boat fisheries, and 490 shoresmen in the wholesale fish establishments.

The investment amounted to $2,249,536 and included 82 fishing and transporting vessels, valued at $392,164, with a net tonnage of 1,594 tons and outfits valued at $168,235; 628 power, sail, row, and other small boats, valued at $187,283; apparatus employed in the vessel and boat fisheries to the value of $314,496; shore and accessory property valued at $978,622, and working cash capital to the amount of $209,300.

The products of the fisheries amounted to 48,250,883 pounds, valued at $3,296,578. The five most important species, arranged in the order of their value, were: Oysters, 6,261,759 pounds, or 894,537 bushels, valued at $1,242,585; scup, 8,261,140 pounds, valued at $817,846; lobsters, 1,694,327 pounds, valued at $360,679; menhaden,

21,536,000 pounds, valued at $268,700, and mackerel, 1,575,923 pounds, valued at $146,611.

Compared with 1905, there has been a decrease of 566 in the number of persons employed in the fisheries of the State, but an increase in the investment amounting to $1,184,062, in the total quantity of products of 24,354,640 pounds and in the value of $1,749,920. There was a large increase in the catch of the following species as compared with 1905: Menhaden, 20,509,800 pounds in quantity and $265,678 in value; scup, 2,721,100 pounds in quantity and $679,816 in value; whiting, 1,313,630 pounds in quantity and $12,244 in value; flounders, 1,308,114 pounds in quantity and $44,139 in value; lobsters, 1,053,873 pounds in quantity and $296,321 in value; and mackerel,

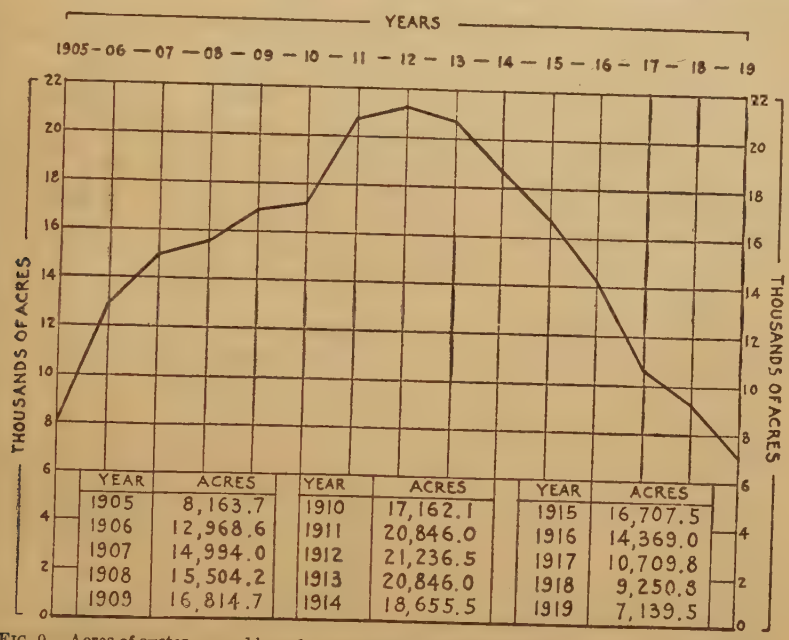



FIG. 9.—Acres of oyster ground leased to individuals in Rhode Island, by years, from 1905 to 1919, inclusive.

737,993 pounds in quantity and $98,557 in value. The species for which there has been a significant decrease, with the amount of the decrease, follow: Squeteague, 2,868,925 pounds in quantity and $52,649 in value; haddock, 505,435 pounds in quantity and $14,276 in value; and alewives, 329,025 pounds in quantity and $1,115 in value. No shad, hickory shad, or king whiting were reported in the catch in 1919. The take of Irish moss amounted to only 2,000 pounds, valued at $240, in 1919, as compared with 16,000 pounds, valued at $1,120, in 1905.

The accompanying graph (fig. 9), showing the number of acres of oyster ground leased to individuals in Rhode Island, by years, from 1905 to 1919, indicates with marked clearness the rise and fall in that State of its most important fishery. According to canvasses made by this Bureau, the yield in 1905 amounted to 916,088 bushels, in 1910 to 2,268,278 bushels, and in 1919 to 894,537 bushels, which substan-

tiates in a measure the general trend of the oyster industry as indicated by this graph.

Although the figures appearing in the appended table show the number of acres leased from the State, they do not represent the actual number of acres under cultivation during each year. From data secured in 1910 the number of acres under cultivation was 15,927.2, or 93 per cent of the total number leased during that year.

### FISHERIES BY COUNTIES.

The statistics as to the number of persons employed, investment, and products of the fisheries in Rhode Island are given by counties in the following table:

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF RHODE ISLAND IN 1919, BY COUNTIES.

| Items. | Bristol. | | Kent. | | Newport. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 24 | | 2 | | 211 | |
| On vessels transporting | 1 | | | | 33 | |
| In shore fisheries | 39 | | 104 | | 449 | |
| Shoresmen | 104 | | 28 | | 104 | |
| Total | 168 | | 134 | | 797 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Gasoline | 7 | $25,300 | 1 | $3,500 | 30 | $92,200 |
| Tonnage | 113 | | 13 | | 406 | |
| Outfit | | 12,481 | | 1,200 | | 46,874 |
| Steam | | | | | 7 | 124,000 |
| Tonnage | | | | | 277 | |
| Outfit | | | | | | 45,950 |
| Vessels transporting: | | | | | | |
| Gasoline | 1 | 1,000 | | | 6 | 16,000 |
| Tonnage | 10 | | | | 55 | |
| Outfit | | 100 | | | | 4,600 |
| Steam | | | | | 5 | 22,000 |
| Tonnage | | | | | 77 | |
| Outfit | | | | | | 23,800 |
| Boats: | | | | | | |
| Sail, row, etc | 16 | 350 | 24 | 410 | 93 | 2,580 |
| Power | 22 | 6,175 | 76 | 20,065 | 229 | 117,290 |
| Apparatus, vessel fisheries: | | | | | | |
| Purse seines | | | | | 18 | 24,695 |
| Gill nets | | | | | 780 | 14,445 |
| Pound nets | | | | | 25 | 75,000 |
| Lines, hand and trawl | | | | | | 785 |
| Otter trawls | 1 | 45 | | | 14 | 688 |
| Harpoons | | | | | | 561 |
| Lobster pots | | | | | 410 | 1,310 |
| Dredges | 14 | 620 | 2 | 75 | 4 | 130 |
| Apparatus, shore fisheries: | | | | | | |
| Seines | 2 | 175 | | | 7 | 574 |
| Gill nets | | | | | 360 | 7,300 |
| Pound nets and trap nets | 6 | 1,800 | | | 75 | 70,350 |
| Fyke nets | | | 20 | 310 | 240 | 4,368 |
| Dip nets | | | | | 30 | 450 |
| Lines, hand and trawl | | 42 | | | | 4,185 |
| Otter trawls | | | | | 39 | 2,270 |
| Harpoons | | | | | | 690 |
| Lobster pots | 321 | 1,030 | 146 | 413 | 15,942 | 47,610 |
| Eel pots | 480 | 530 | | | 60 | 85 |
| Dredges | 12 | 122 | 142 | 744 | 40 | 218 |
| Tongs | 21 | 185 | 92 | 743 | 58 | 583 |
| Rakes | 1 | 5 | 5 | 40 | 7 | 27 |
| Hoes | 12 | 12 | 54 | 54 | 7 | 7 |
| Grabs | | | | | 6 | 18 |
| Shovels | 10 | 10 | 11 | 11 | | |
| Winkle pots | | | | | 260 | 880 |
| Shore and accessory property | | 107,982 | | 9,562 | | 462,753 |
| Cash capital | | 34,500 | | 4,800 | | 79,000 |
| Total | | 192,464 | | 41,927 | | 1,294,276 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF RHODE ISLAND IN 1919, BY COUNTIES—Continued.

| Items. | Bristol. | | Kent. | | Newport. | |
|---|---|---|---|---|---|---|
| PRODUCTS. | Pounds. | Value. | Pounds. | Value. | Pounds. | Value. |
| Alewives | | | | | 260,550 | $5,736 |
| Bluefish | | | | | 21,345 | 2,485 |
| Bonito | | | | | 114,810 | 10,825 |
| Butterfish | 20,000 | $1,000 | | | 712,320 | 36,592 |
| Cod | | | | | 1,123,331 | 48,647 |
| Cunner | | | | | 8,000 | 960 |
| Eels | 67,450 | 7,042 | | | 131,730 | 14,075 |
| Flounders | 41,330 | 1,240 | 510 | $15 | 1,687,699 | 53,740 |
| Haddock | | | | | 10,300 | 512 |
| Herring | | | | | 144,550 | 3,509 |
| Mackerel | | | | | 1,531,423 | 141,689 |
| Menhaden | | | | | 21,536,000 | 268,700 |
| Perch, white | | | | | 5,043 | 702 |
| Pollock | | | | | 99,400 | 5,920 |
| Scup | | | | | 8,206,000 | 812,456 |
| Sea bass | | | | | 48,741 | 5,454 |
| Squeteague | | | | | 285,440 | 26,675 |
| Swordfish | | | | | 101,010 | 19,757 |
| Tautog | 30,780 | 1,561 | 280 | 15 | 274,825 | 15,275 |
| Tuna | | | | | 50,130 | 4,010 |
| Whiting | | | | | 1,405,200 | 14,140 |
| Lobster | 24,300 | 4,780 | 9,413 | 1,993 | 1,270,562 | 273,086 |
| Crabs | | | | | 26,000 | 1,300 |
| Squid | | | | | 180,265 | 8,065 |
| Clams: | | | | | | |
| Hard | 5,560 | 2,130 | 49,944 | 18,845 | 34,544 | 13,106 |
| Soft | 15,290 | 919 | 108,120 | 6,432 | 23,160 | 1,268 |
| Scallops | 400 | 200 | 31,074 | 13,125 | 2,016 | 1,032 |
| Mussels | | | | | 10,000 | 1,000 |
| Winkles | | | | | 10,500 | 2,100 |
| Oysters, market, private | 1,481,942 | 282,592 | 81,508 | 16,124 | 56,700 | 11,472 |
| Irish moss | | | | | 2,000 | 240 |
| Total | 1,687,052 | 301,464 | 280,849 | 56,549 | 39,373,594 | 1,804,528 |

| Items. | Providence. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | Number. | Value. | Number. | Value. | Number. | Value. |
| On vessels fishing | 55 | | 25 | | 317 | |
| On vessels transporting | 2 | | 8 | | 44 | |
| In shore fisheries | 73 | | 130 | | 795 | |
| Shoresmen | 231 | | 23 | | 490 | |
| Total | 361 | | 186 | | 1,646 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Gasoline | 7 | $52,000 | 10 | $26,400 | 55 | $199,400 |
| Tonnage | 229 | | 88 | | 849 | |
| Outfit | | 13,520 | | 7,950 | | 82,025 |
| Steam | 2 | 17,000 | | | 9 | 141,000 |
| Tonnage | 87 | | | | 564 | |
| Outfit | | 5,960 | | | | 51,910 |
| Vessels transporting: | | | | | | |
| Gasoline | 1 | 1,200 | 5 | 11,000 | 13 | 29,200 |
| Tonnage | 5 | | 34 | | 104 | |
| Outfit | | 1,400 | | 4,400 | | 10,500 |
| Steam | | | | | 5 | 22,000 |
| Tonnage | | | | | 77 | |
| Outfit | | | | | | 23,800 |
| Boats: | | | | | | |
| Sail, row, etc | 29 | 483 | 34 | 680 | 196 | 4,503 |
| Power | 21 | 4,575 | 84 | 34,675 | 432 | 182,780 |
| Apparatus, vessel fisheries: | | | | | | |
| Purse seines | | | | | 18 | 24,695 |
| Gill nets | | | | | 780 | 14,445 |
| Pound nets | | | | | 25 | 75,000 |
| Lines, hand and trawl | | | | | | 785 |
| Otter trawls | | | 5 | 240 | 20 | 973 |
| Harpoons | | | | | | 561 |
| Lobster pots | | | 225 | 675 | 635 | 1,985 |
| Dredges | 20 | 955 | 8 | 312 | 48 | 2,092 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF RHODE ISLAND IN 1919, BY COUNTIES—Continued.

| Items. | Providence. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|
| INVESTMENT—continued. | | | | | | |
| Apparatus, shore fisheries: | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Seines | 1 | $50 | 1 | $100 | 11 | $899 |
| Gill nets | | | | | 360 | 7,300 |
| Pound nets and trap nets | | | 27 | 29,600 | 108 | 101,750 |
| Fyke nets | | | 30 | 540 | 290 | 5,218 |
| Dip nets | | | | | 30 | 450 |
| Lines, hand and trawl | | | | 265 | | 4,492 |
| Otter trawls | | | 4 | 155 | 43 | 2,425 |
| Harpoons | | | | | | 690 |
| Lobster pots | | | 5,527 | 16,293 | 21,936 | 65,346 |
| Eel pots | 280 | 255 | 175 | 165 | 995 | 1,035 |
| Dredges | | | 7 | 35 | 201 | 1,119 |
| Tongs | 62 | 405 | 8 | 65 | 241 | 1,981 |
| Rakes | 4 | 16 | 12 | 78 | 29 | 166 |
| Hoes | 55 | 53 | 24 | 22 | 152 | 148 |
| Grabs | | | | | 6 | 18 |
| Shovels | 22 | 22 | | | 43 | 43 |
| Winkle pots | | | | | 260 | 880 |
| Shore and accessory property | | 370,570 | | 27,755 | | 978,622 |
| Cash capital | | 81,500 | | 9,500 | | 209,300 |
| Total | | 549,964 | | 170,905 | | 2,249,536 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | 9,015 | $180 | 269,565 | $5,916 |
| Bluefish | | | 4,330 | 685 | 25,675 | 3,170 |
| Bonito | | | | | 114,810 | 10,825 |
| Butterfish | | | 26,525 | 1,596 | 758,845 | 39,188 |
| Cod | | | 25,000 | 1,100 | 1,148,331 | 49,747 |
| Cunner | | | | | 8,000 | 960 |
| Eels | 25,390 | $2,698 | 50,165 | 5,822 | 274,735 | 29,637 |
| Flounders | | | 722,040 | 24,572 | 2,451,579 | 79,567 |
| Haddock | | | | | 10,300 | 512 |
| Herring | | | 25,110 | 501 | 169,660 | 4,010 |
| Mackerel | | | 44,500 | 4,922 | 1,575,923 | 146,611 |
| Menhaden | | | | | 21,536,000 | 268,700 |
| Perch, white | | | | | 5,043 | 702 |
| Pollock | | | | | 99,400 | 5,920 |
| Salmon | | | 70 | 12 | 70 | 12 |
| Scup | | | 55,140 | 5,390 | 8,261,140 | 817,846 |
| Sea bass | | | 3,300 | 500 | 52,041 | 5,954 |
| Squeteague | | | 68,420 | 7,154 | 353,860 | 33,829 |
| Striped bass | | | 33,705 | 5,236 | 33,705 | 5,236 |
| Swordfish | | | | | 101,010 | 19,757 |
| Tautog | | | 65,775 | 5,340 | 371,660 | 22,191 |
| Tuna | | | 11,220 | 800 | 61,350 | 4,810 |
| Whiting | | | 178,500 | 1,870 | 1,583,700 | 16,010 |
| Lobster | | | 390,052 | 80,820 | 1,694,327 | 360,679 |
| Crabs | | | 8,330 | 502 | 34,330 | 1,802 |
| Squid | | | 197,314 | 10,665 | 377,579 | 18,730 |
| Clams: | | | | | | |
| Hard | 27,128 | 10,918 | 39,056 | 14,650 | [1] 156,232 | 59,649 |
| Soft | 205,770 | 12,371 | 51,420 | 3,085 | [2] 403,760 | 24,075 |
| Scallops | | | 504 | 251 | [3] 33,994 | 14,608 |
| Mussels | | | | | [4] 10,000 | 1,000 |
| Winkles | | | | | [5] 10,500 | 2,100 |
| Oysters, market, private | 4,428,018 | 885,600 | 213,591 | 46,797 | [6] 6,261,759 | 1,242,585 |
| Irish moss | | | | | 2,000 | 240 |
| Total | 4,686,306 | 911,587 | 2,223,082 | 222,450 | 48,250,883 | 3,296,578 |

[1] 19,529 bushels. [2] 40,376 bushels. [3] 5,666 bushels. [4] 1,000 bushels. [5] 1,050 bushels. [6] 894,537 bushels.

FISHERIES BY APPARATUS.

The combined yield of all forms of apparatus employed in the vessel and shore fisheries of Rhode Island in 1919 amounted to 48,250,883 pounds, valued at $3,296,578. Dredges employed principally in the oyster vessel fishery were the most productive form of apparatus, yielding 6,142,623 pounds of oysters and mussels, valued at $1,217,637; while dredges, tongs, rakes, hoes, shovels, and grabs used in the shore fisheries took 723,122 pounds of oysters, clams,

and scallops, valued at $124,280. Pound nets used in both the vessel and shore fisheries yielded 13,759,923 pounds, valued at $1,051,315, of which 8,261,140 pounds, valued at $799,846, were scup. Other important species taken in pound nets were: Butterfish, 625,095 pounds, valued at $32,493; mackerel, 321,343 pounds, valued at $30,139; squeteague, 311,260 pounds, valued at $29,574; and flounders, 911,965 pounds, valued at $27,574. The catch with pots amounted to 1,790,182 pounds, valued at $370,399. Lobsters were the principal species taken in pots, amounting to 1,694,327 pounds, valued at $360,679. Purse seines yielded 21,959,000 pounds, valued at $308,150, of which 21,536,000 pounds were menhaden, valued at $268,700, and 423,200 pounds were mackerel, valued at $39,450.

Other important forms of apparatus employed in both the vessel and shore fisheries, arranged in the order of their importance, based on the value of their catch, were: Lines, with 1,389,986 pounds, mostly cod, bonito, and eels, valued at $75,724; gill nets, with 759,980 pounds of mackerel, valued at $70,632; otter trawls, with 1,481,340 pounds, valued at $50,389, consisting principally of flounders; and harpoons, with 101,010 pounds of swordfish, valued at $19,757.

The catch of winkles with pots amounted to 10,500 pounds, valued at $2,100. These are caught in winkle pots and are used for bait for cod. The pots are similar to the ordinary lobster pots, with the entrance at the top instead of at the end. The bait employed in the pots is of about the same character as that used in lobster pots.

The following tables give the products of the vessel and shore fisheries of Rhode Island in 1919, by counties, apparatus, and species:

YIELD OF VESSEL FISHERIES OF RHODE ISLAND IN 1919, BY COUNTIES, APPARATUS, AND SPECIES.

| Apparatus and species. | Bristol. | | Kent. | | Newport. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: | | | | | | |
| Mackerel | | | | | 423,200 | $39,450 |
| Menhaden | | | | | 21,536,000 | 268,700 |
| Total | | | | | 21,959,200 | 308,150 |
| Gill nets: Mackerel | | | | | 519,450 | 48,385 |
| Pound nets: | | | | | | |
| Alewives | | | | | 60,110 | 1,202 |
| Bluefish | | | | | 11,200 | 1,140 |
| Butterfish | | | | | 133,750 | 6,695 |
| Cod | | | | | 40,100 | 2,010 |
| Eels | | | | | 3,520 | 452 |
| Flounders | | | | | 465,300 | 13,950 |
| Mackerel | | | | | 23,100 | 1,890 |
| Scup | | | | | 7,685,500 | 764,000 |
| Sea bass | | | | | 1,500 | 160 |
| Squeteague | | | | | 41,800 | 4,160 |
| Tautog | | | | | 13,550 | 675 |
| Whiting | | | | | 751,000 | 7,510 |
| Squid | | | | | 45,100 | 2,015 |
| Total | | | | | 9,275,530 | 805,859 |
| Lines: | | | | | | |
| Cod | | | | | 846,711 | 37,280 |
| Pollock | | | | | 34,000 | 1,750 |
| Tautog | | | | | 8,000 | 600 |
| Total | | | | | 888,711 | 39,630 |
| Otter trawls: Flounders | 5,000 | $150 | | | 830,500 | 28,075 |
| Harpoons: Swordfish | | | | | 42,100 | 7,910 |

YIELD OF VESSEL FISHERIES OF RHODE ISLAND IN 1919, BY COUNTIES, APPARATUS, AND SPECIES—Continued.

| Apparatus and species. | Bristol. | | Kent. | | Newport. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Lobster pots: | | | | | | |
| Lobsters | | | | | 17, 500 | $3, 830 |
| Crabs | | | | | 26, 000 | 1, 300 |
| Total | | | | | 43, 500 | 5, 130 |
| Dredges: | | | | | | |
| Mussels | | | | | 10, 000 | 1, 000 |
| Oysters, market, private | 1, 418, 942 | $269, 992 | 21, 000 | $4, 020 | 54, 950 | 11, 000 |
| Total | 1, 418, 942 | 269, 992 | 21, 000 | 4, 020 | 64, 950 | 12, 000 |
| Grand total | 1, 423, 942 | 270, 142 | 21, 000 | 4, 020 | 33, 623, 941 | 1, 255, 139 |

| Apparatus and species. | Providence. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: | | | | | | |
| Mackerel | | | | | 423, 200 | $39, 450 |
| Menhaden | | | | | 21, 536, 000 | 268, 700 |
| Total | | | | | 21, 959, 000 | 308, 150 |
| Gill nets: Mackerel | | | | | 519, 450 | 48, 385 |
| Pound nets: | | | | | | |
| Alewives | | | | | 60, 110 | 1, 202 |
| Bluefish | | | | | 11, 200 | 1, 140 |
| Butterfish | | | | | 133, 750 | 6, 695 |
| Cod | | | | | 40, 100 | 2, 010 |
| Eels | | | | | 3, 520 | 452 |
| Flounders | | | | | 465, 300 | 13, 950 |
| Mackerel | | | | | 23, 100 | 1, 890 |
| Scup | | | | | 7, 685, 500 | 764, 000 |
| Sea bass | | | | | 1, 500 | 160 |
| Squeteague | | | | | 41, 800 | 4, 160 |
| Tautog | | | | | 13, 550 | 675 |
| Whiting | | | | | 751, 000 | 7, 510 |
| Squid | | | | | 45, 100 | 2, 015 |
| Total | | | | | 9, 275, 530 | 805, 859 |
| Lines: | | | | | | |
| Cod | | | | | 846, 711 | 37, 280 |
| Pollock | | | | | 34, 000 | 1, 750 |
| Tautog | | | | | 8, 000 | 600 |
| Total | | | | | 888, 711 | 39, 630 |
| Otter trawls: Flounders | | | 365, 200 | $13, 490 | 1, 200, 700 | 41, 715 |
| Harpoons: Swordfish | | | | | 42, 100 | 7, 910 |
| Lobster pots: | | | | | | |
| Lobsters | | | 16, 500 | 3, 500 | 34, 000 | 7, 330 |
| Crabs | | | | | 26, 000 | 1, 300 |
| Total | | | 16, 500 | 3, 500 | 60, 000 | 8, 630 |
| Dredges: | | | | | | |
| Mussels | | | | | 10, 000 | 1, 000 |
| Oysters, market, private | 4, 427, 500 | $885, 500 | 210, 231 | 46, 125 | 6, 132, 623 | 1, 216, 637 |
| Total | 4, 427, 500 | 885, 500 | 210, 231 | 46, 125 | 6, 142, 623 | 1, 217, 637 |
| Grand total | 4, 427, 500 | 885, 500 | 591, 931 | 63, 115 | 40, 088, 314 | 2, 477, 916 |

YIELD OF SHORE FISHERIES OF RHODE ISLAND IN 1919, BY APPARATUS, COUNTIES, AND SPECIES.

BY SEINES, POUND NETS, AND LINES.

| Apparatus and species. | Bristol. | | Newport. | | Providence. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Seines: | | | | | | | | | | |
| Eels | | | | | | | | | | |
| Flounders | 5,000 | $150 | | | 10,920 | $1,211 | | | 10,920 | $1,211 |
| Herring | | | 30,160 | $758 | | | | | 5,000 | 150 |
| Mackerel | | | | | | | | | 30,160 | 758 |
| Perch, white | | | 5,043 | 702 | | | 6,300 | $700 | 6,300 | 700 |
| Tautog | 10,000 | 500 | | | | | | | 5,043 | 702 |
| | | | | | | | | | 10,000 | 500 |
| Total | 15,000 | 650 | 35,203 | 1,460 | 10,920 | 1,211 | 6,300 | 700 | 67,423 | 4,021 |
| Pound nets: | | | | | | | | | | |
| Alewives | | | 200,410 | 4,534 | | | | | | |
| Bluefish | | | 19,145 | 1,315 | | | 9,015 | 180 | 209,455 | 4,714 |
| Bonito | | | 39,810 | 3,320 | | | 4,330 | 685 | 14,475 | 2,030 |
| Butterfish | 20,000 | 1,000 | 578,570 | 29,897 | | | | | 39,810 | 3,320 |
| Cod | | | 73,840 | 2,730 | | | 26,525 | 1,596 | 625,095 | 32,493 |
| Eels | 20,000 | 2,000 | 117,960 | 12,184 | | | 25,000 | 1,100 | 98,840 | 3,830 |
| Flounders | 30,000 | 900 | 175,985 | 5,292 | | | 4,500 | 450 | 142,490 | 14,634 |
| Herring | | | 114,390 | 2,751 | | | 240,680 | 7,432 | 446,665 | 13,624 |
| Mackerel | | | 284,943 | 26,117 | | | 25,110 | 501 | 139,500 | 3,252 |
| Pollock | | | 44,400 | 2,680 | | | 36,400 | 4,022 | 321,343 | 30,139 |
| Salmon | | | | | | | | | 44,400 | 2,680 |
| Scup | | | 520,500 | 48,456 | | | 70 | 12 | 70 | 12 |
| Sea bass | | | 46,231 | 5,255 | | | 55,140 | 5,390 | 575,640 | 53,846 |
| Squeteague | | | 243,640 | 22,515 | | | 3,300 | 500 | 49,531 | 5,755 |
| Striped bass | | | | | | | 67,620 | 7,059 | 311,260 | 29,574 |
| Tautog | 20,000 | 1,000 | 199,065 | 10,642 | | | 31,555 | 4,836 | 31,555 | 4,836 |
| Tuna | | | | | | | 39,800 | 3,140 | 258,865 | 14,782 |
| Whiting | | | 651,200 | 6,630 | | | 10,220 | 720 | 10,220 | 720 |
| Squid | | | 125,165 | 6,050 | | | 178,500 | 1,870 | 832,700 | 8,500 |
| | | | | | | | 197,314 | 10,665 | 332,479 | 16,715 |
| Total | 90,000 | 4,900 | 3,439,314 | 190,398 | | | 955,079 | 50,158 | 1,484,393 | 245,456 |
| Lines: | | | | | | | | | | |
| Bonito | | | 75,000 | 7,505 | | | | | 75,000 | 7,505 |
| Cod | | | 162,680 | 6,627 | | | | | 162,680 | 6,627 |
| Eels | 15,000 | 1,600 | 6,200 | 1,010 | | | 37,250 | 4,410 | 58,450 | 7,020 |
| Flounders | 1,330 | 40 | | | | | 21,550 | 740 | 22,880 | 780 |
| Mackerel | | | 40,200 | 3,600 | | | 1,800 | 200 | 42,000 | 3,800 |
| Pollock | | | 21,000 | 1,490 | | | | | 21,000 | 1,490 |
| Sea bass | | | 1,010 | 39 | | | | | 1,010 | 39 |
| Squeteague | | | | | | | 800 | 95 | 800 | 95 |
| Striped bass | | | | | | | 2,150 | 400 | 2,150 | 400 |
| Tautog | 780 | 61 | 29,090 | 1,485 | | | 25,975 | 2,200 | 55,845 | 3,746 |
| Tuna | | | 50,130 | 4,010 | | | 1,000 | 80 | 51,130 | 4,090 |
| Crabs | | | | | | | 8,330 | 502 | 8,330 | 502 |
| Total | 17,110 | 1,701 | 385,310 | 25,766 | | | 98,855 | 8,627 | 501,275 | 36,094 |

BY GILL NETS, FYKE NETS, DIP NETS, OTTER TRAWLS, AND HARPOONS.

| Apparatus and species. | Kent. | | Newport. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Gill nets: Mackerel | | | 240,530 | $22,247 | | | 240,530 | $22,247 |
| Fyke nets: | | | | | | | | |
| Flounders | 510 | $15 | 35,184 | 1,021 | 5,000 | $150 | 40,694 | 1,186 |
| Tautog | 280 | 15 | 25,120 | 1,873 | | | 25,400 | 1,888 |
| Total | 790 | 30 | 60,304 | 2,894 | 5,000 | 150 | 66,094 | 3,074 |
| Dip nets: Cunner | | | 8,000 | 960 | | | 8,000 | 960 |
| Otter trawls: | | | | | | | | |
| Flounders | | | 180,730 | 5,402 | 89,610 | 2,760 | 270,340 | 8,162 |
| Haddock | | | 10,300 | 512 | | | 10,300 | 512 |
| Total | | | 191,030 | 5,914 | 89,610 | 2,760 | 280,640 | 8,674 |
| Harpoons: Swordfish | | | 58,910 | 11,847 | | | 58,910 | 11,847 |
| Grand total | 790 | 30 | 558,774 | 43,862 | 94,610 | 2,910 | 654,174 | 46,802 |

YIELD OF SHORE FISHERIES OF RHODE ISLAND IN 1919, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY POTS.

| Species. | Bristol. | | Kent. | | Newport. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Eels | 32,450 | $3,442 | | | 4,020 | $429 |
| Lobsters | 24,300 | 4,780 | 9,413 | $1,993 | 1,253,062 | 269,256 |
| Winkles | | | | | 10,500 | 2,100 |
| Total | 56,750 | 8,222 | 9,413 | 1,993 | 1,267,582 | 271,785 |

| Species. | Providence. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Eels | 14,470 | $1,487 | 8,415 | $962 | 59,355 | $6,320 |
| Lobsters | | | 373,552 | 77,320 | 1,660,327 | 353,349 |
| Winkles | | | | | 10,500 | 2,100 |
| Total | 14,470 | 1,487 | 381,967 | 78,282 | 1,730,182 | 361,769 |

BY DREDGES, TONGS, RAKES, HOES, SHOVELS, GRABS, AND HANDS.

| Species. | Bristol. | | Kent. | | Newport. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Clams: | | | | | | |
| Hard | 5,560 | $2,130 | 49,944 | $18,845 | 34,544 | $13,106 |
| Soft | 15,290 | 919 | 108,120 | 6,432 | 23,160 | 1,268 |
| Scallops | 400 | 200 | 31,074 | 13,125 | 2,016 | 1,032 |
| Oysters, market, private | 63,000 | 12,600 | 60,508 | 12,104 | 1,750 | 472 |
| Irish moss | | | | | 2,000 | 240 |
| Total | 84,250 | 15,849 | 249,646 | 50,506 | 63,470 | 16,118 |

| Species. | Providence. | | Washington. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Clams: | | | | | | |
| Hard | 27,128 | $10,918 | 39,056 | $14,650 | 156,232 | $59,649 |
| Soft | 205,770 | 12,371 | 51,420 | 3,085 | 403,760 | 24,075 |
| Scallops | | | 504 | 251 | 33,994 | 14,608 |
| Oysters, market, private | 518 | 100 | 3,360 | 672 | 129,136 | 25,948 |
| Irish moss | | | | | 2,000 | 240 |
| Total | 233,416 | 23,389 | 94,340 | 18,658 | 725,122 | 124,520 |

## WHOLESALE FISHERY TRADE.

The appended table shows the extent of the wholesale trade in Rhode Island in 1919. A considerable quantity of poultry grit, made by grinding oyster shells, was manufactured by one concern. To avoid the disclosure of individual enterprise the products of this plant are not included in the table.

WHOLESALE TRADE IN FRESH FISH, OYSTERS, CLAMS, SCALLOPS, AND LOBSTERS IN RHODE ISLAND IN 1919.[1]

| Item. | Number. | Value. | Item. | Number. | Value. |
|---|---|---|---|---|---|
| Establishments | 40 | $928,355 | Persons engaged | 472 | |
| Cash capital | | 209,300 | Wages paid | | $422,330 |

[1] Includes one firm engaged in the manufacture of oyster-shell grit.

## FISHERIES OF CONNECTICUT.

In 1919 Connecticut ranked third in the number of persons engaged and fourth in the investment and quantity and value of the products. The number of persons employed on fishing and transporting vessels was 647, in the shore or boat fisheries 1,019, and in the wholesale establishments, including the fertilizer plants, 623, representing a total of 2,289. The investment amounted to $1,645,793, which includes 123 fishing and transporting vessels, valued at $546,163, with a net tonnage of 3,869 tons and outfits valued at $253,888; 763 power, sail, row, and other boats, valued at $146,551; fishing apparatus employed in the vessel and shore fisheries to the value of $101,992; shore and accessory property valued at $498,699; and working cash capital to the amount of $98,500.

The products of the fisheries amounted to 23,652,647 pounds, valued at $1,700,638. The most important products were oysters, 12,197,703 pounds, or 1,742,529 bushels, valued at $1,087,016; menhaden, 6,736,564 pounds, valued at $93,312; flounders, 2,349,181 pounds, valued at $91,962; lobsters, 740,848 pounds, valued at $189,157; and shad, 463,203 pounds, valued at $86,637.

Compared with 1905, there has been a decrease in the number of persons employed of 1,118, an increase in the investment amounting to $10,040, and a decrease in the quantity of products taken amounting to 51,320,001 pounds and in the value amounting to $1,473,310. The species for which the decrease in 1919 has been most marked as compared with 1905, with the amount of decrease, follow: Menhaden, 22,993,824 pounds; alewives, 1,054,878 pounds; swordfish, 362,287 pounds; squeteague, 138,503 pounds; bluefish, 124,292 pounds; and sea bass, 93,161 pounds. In the oyster fishery there has been a decrease, compared with the catch in 1905, amounting to 1,944,895 bushels, or 52.74 per cent, and with the catch in 1910, of 1,529,471 bushels, or 46.74 per cent.

### FISHERIES BY COUNTIES.

Statistics of the number of persons employed, investment, and products of the fisheries in Connecticut are given by counties in the following table:

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF CONNECTICUT IN 1919, BY COUNTIES.

| Item. | Fairfield. | | Hartford. | | Middlesex. | |
|---|---|---|---|---|---|---|
| | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| PERSONS ENGAGED. | | | | | | |
| On vessels fishing | 337 | | | | | |
| On vessels transporting | 22 | | | | | |
| In shore fisheries | 88 | | 126 | | 275 | |
| Shoresmen | 254 | | | | 2 | |
| Total | 701 | | 126 | | 277 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Steam | 16 | $195,193 | | | | |
| Tonnage | 1,116 | | | | | |
| Outfit | | 104,038 | | | | |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF CONNECTICUT IN 1919, BY COUNTIES—Continued.

| Item. | Fairfield. | | Hartford. | | Middlesex. | |
|---|---|---|---|---|---|---|
| INVESTMENT—continued. | | | | | | |
| Vessels fishing—Continued. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| Gasoline | 41 | $98,025 | | | | |
| Tonnage | 568 | | | | | |
| Outfit | | 53,740 | | | | |
| Sail | 19 | 9,195 | | | | |
| Tonnage | 135 | | | | | |
| Outfit | | 5,035 | | | | |
| Vessels transporting: | | | | | | |
| Steam | 2 | 13,200 | | | | |
| Tonnage | 111 | | | | | |
| Outfit | | 9,627 | | | | |
| Boats: | | | | | | |
| Sail, row, etc. | 35 | 2,040 | 73 | $1,582 | 73 | $1,814 |
| Power | 39 | 11,325 | 8 | 825 | 93 | 22,455 |
| Apparatus, vessel fisheries: | | | | | | |
| Otter trawls | 7 | 300 | | | | |
| Harpoons | | 30 | | | | |
| Lobster pots | 430 | 645 | | | | |
| Dredges | 289 | 5,398 | | | | |
| Apparatus, shore fisheries: | | | | | | |
| Seines | 6 | 710 | 27 | 1,834 | 17 | 1,244 |
| Gill nets | 1 | 10 | 83 | 1,066 | 92 | 9,369 |
| Pound nets | | | | | 9 | 2,935 |
| Fyke nets | | | 266 | 2,043 | 37 | 447 |
| Scoop nets | | | 3 | 15 | | |
| Otter trawls | 3 | 110 | | | 7 | 280 |
| Lobster pots | 2,085 | 4,060 | | | 1,353 | 3,053 |
| Eel pots | | | | | 145 | 123 |
| Dredges | 51 | 359 | | | | |
| Tongs | 28 | 190 | | | 6 | 55 |
| Rakes | 17 | 116 | | | | |
| Hoes | 8 | 10 | | | 15 | 18 |
| Shore and accessory property | | 279,084 | | 1,703 | | 7,986 |
| Cash capital | | 29,000 | | | | |
| Total | | 821,440 | | 9,068 | | 49,779 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | | | 40,161 | $2,008 | 98,713 | $2,122 |
| Bluefish | | | 965 | 95 | | |
| Bullheads | | | 60 | 6 | 365 | 17 |
| Butterfish | | | | | 50 | 3 |
| Carp | | | 11,854 | 1,637 | 18,509 | 2,145 |
| Eels | | | 4,768 | 1,038 | 6,420 | 608 |
| Flounders | 85,105 | $3,727 | | | 184,160 | 6,202 |
| Menhaden | 300 | 25 | | | 18,314 | 1,110 |
| Perch, yellow | | | 2,434 | 235 | 1,213 | 109 |
| Pickerel | | | 128 | 20 | 340 | 35 |
| Shad | | | 34,959 | 8,627 | 329,829 | 59,309 |
| Smelt | 4,114 | 886 | | | | |
| Squeteague | | | | | 2,721 | 231 |
| Striped bass | | | | | 850 | 110 |
| Sturgeon | | | | | 25 | 5 |
| Suckers | | | 55,576 | 4,564 | 28,527 | 1,918 |
| Sunfish | | | 80 | 8 | 25 | 3 |
| Swordfish | 1,480 | 295 | | | | |
| Tautog | | | | | 809 | 61 |
| Lobsters | 72,924 | 23,885 | | | 80,355 | 23,092 |
| Clams: | | | | | | |
| Hard | 39,472 | 14,589 | | | | |
| Soft | 8,000 | 725 | | | 12,200 | 804 |
| Oysters: | | | | | | |
| Market— | | | | | | |
| Public | 18,942 | 2,880 | | | 4,004 | 810 |
| Private | 2,570,197 | 227,935 | | | 5,614 | 1,001 |
| Seed— | | | | | | |
| Public | 633,885 | 58,345 | | | | |
| Private | 4,976,454 | 372,677 | | | | |
| Total | 8,410,873 | 705,969 | 150,985 | 18,238 | 793,043 | 99.695 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF CONNECTICUT IN 1919, BY COUNTIES—Continued.

| Item. | New Haven. | | New London. | | Total. | |
|---|---|---|---|---|---|---|
| PERSONS ENGAGED. | *Number.* | *Value.* | *Number.* | *Value.* | *Number.* | *Value.* |
| On vessels fishing | 142 | | 87 | | 566 | |
| On vessels transporting | 59 | | | | 81 | |
| In shore fisheries | 272 | | 258 | | 1,019 | |
| Shoresmen | 301 | | 66 | | 623 | |
| Total | 774 | | 411 | | 2,289 | |
| INVESTMENT. | | | | | | |
| Vessels fishing: | | | | | | |
| Steam | 6 | $73,050 | 2 | $60,000 | 24 | $328,243 |
| Tonnage | 952 | | 172 | | 2,240 | |
| Outfit | | 18,708 | | 12,600 | | 135,346 |
| Gasoline | 19 | 60,550 | 7 | 21,850 | 67 | 180,425 |
| Tonnage | 273 | | 83 | | 924 | |
| Outfit | | 25,325 | | 15,625 | | 94,690 |
| Sail | 3 | 1,200 | 2 | 2,100 | 24 | 12,495 |
| Tonnage | 33 | | 15 | | 183 | |
| Outfit | | 1,050 | | 1,870 | | 7,955 |
| Vessels transporting: | | | | | | |
| Steam | | | | | 2 | 13,200 |
| Tonnage | | | | | 111 | |
| Outfit | | | | | | 9,627 |
| Gasoline | 4 | 7,800 | | | 4 | 7,800 |
| Tonnage | 95 | | | | 95 | |
| Outfit | | 4,370 | | | | 4,370 |
| Barges | 2 | 4,000 | | | 2 | 4,000 |
| Tonnage | 316 | | | | 316 | |
| Outfit | | 1,900 | | | | 1,900 |
| Boats: | | | | | | |
| Sail, row, etc. | 156 | 2,773 | 62 | 1,461 | 399 | 9,670 |
| Power | 61 | 14,215 | 163 | 88,061 | 364 | 136,881 |
| Apparatus, vessel fisheries: | | | | | | |
| Purse seines | | | 4 | 7,800 | 4 | 7,800 |
| Gill nets | | | 115 | 2,680 | 115 | 2,680 |
| Lines | | | | 555 | | 555 |
| Otter trawls | 1 | 30 | 6 | 350 | 14 | 680 |
| Harpoons | | | | 570 | | 600 |
| Lobster pots | 50 | 100 | | | 480 | 745 |
| Dredges | 83 | 3,039 | | | 372 | 8,437 |
| Apparatus, shore fisheries: | | | | | | |
| Seines | | | 4 | 1,105 | 54 | 4,893 |
| Gill nets | | | 28 | 3,465 | 204 | 13,910 |
| Pound nets | 2 | 577 | 31 | 5,600 | 42 | 9,112 |
| Fyke nets | 4 | 75 | 132 | 1,420 | 439 | 3,985 |
| Scoop nets | | | 4 | 20 | 7 | 35 |
| Lines | | 18 | | 40 | | 58 |
| Otter trawls | 10 | 361 | 33 | 1,643 | 53 | 2,394 |
| Harpoons | | | | 80 | | 80 |
| Lobster pots | 3,835 | 8,238 | 8,900 | 27,183 | 16,173 | 42,534 |
| Eel pots | 22 | 37 | 634 | 457 | 801 | 617 |
| Dredges | 4 | 36 | | | 55 | 395 |
| Tongs | 207 | 1,724 | 3 | 25 | 244 | 1,994 |
| Rakes | 44 | 251 | | | 61 | 367 |
| Hoes | 45 | 41 | | | 68 | 69 |
| Shovels | 13 | 13 | | | 13 | 13 |
| Spears | 28 | 34 | 2 | 5 | 30 | 39 |
| Shore and accessory property | | 147,665 | | 62,261 | | 498,699 |
| Cash capital | | 50,200 | | 19,300 | | 98,500 |
| Total | | 427,380 | | 338,126 | | 1,645,793 |
| PRODUCTS. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Alewives | 500 | $5 | 37,776 | $2,502 | 177,150 | $6,637 |
| Bluefish | 660 | 80 | 2,085 | 211 | 3,710 | 386 |
| Bonito | | | 6,120 | 912 | 6,120 | 912 |
| Bullheads | | | 1,067 | 77 | 1,492 | 100 |
| Butterfish | | | 18,760 | 2,604 | 18,810 | 2,607 |
| Carp | | | 9,778 | 1,140 | 40,141 | 4,922 |
| Cod | | | 96,136 | 9,603 | 96,136 | 9,603 |
| Cusk | | | 6,767 | 73 | 6,767 | 73 |
| Eels | 14,153 | 1,960 | 37,705 | 6,233 | 63,046 | 9,839 |
| Flounders | 99,175 | 4,801 | 1,980,441 | 77,232 | 2,349,181 | 91,962 |
| Haddock | | | 350 | 38 | 350 | 38 |
| Hake | 100 | 2 | 10,100 | 100 | 10,200 | 102 |
| Halibut | | | 25,000 | 5,000 | 25,000 | 5,000 |
| Herring | | | 3,000 | 71 | 3,000 | 71 |
| Mackerel | 7,400 | 1,572 | 83,989 | 9,418 | 91,389 | 10,990 |

PERSONS ENGAGED, INVESTMENT, AND PRODUCTS OF FISHERIES OF CONNECTICUT IN 1919, BY COUNTIES—Continued.

| Item. | New Haven. | | New London. | | Total. | |
|---|---|---|---|---|---|---|
| PRODUCTS—continued. | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Menhaden | 102,350 | $350 | 6,615,600 | $91,827 | 6,736,564 | $93,312 |
| Perch, yellow | | | 2,461 | 251 | 6,108 | 595 |
| Pickerel | | | 611 | 88 | 1,079 | 143 |
| Pollock | | | 10,135 | 717 | 10,135 | 717 |
| Scup | | | 1,980 | 202 | 1,980 | 202 |
| Sea bass | 210 | 60 | 3,345 | 468 | 3,555 | 528 |
| Shad | 327 | 83 | 98,088 | 18,618 | 463,203 | 86,637 |
| Skates | | | 400 | 10 | 400 | 10 |
| Smelt | | | 21,103 | 3,580 | 25,217 | 4,466 |
| Squeteague | 808 | 58 | 19,547 | 2,968 | 23,076 | 3,257 |
| Striped bass | 21 | 5 | 3,939 | 944 | 4,810 | 1,059 |
| Sturgeon | | | | | 25 | 5 |
| Suckers | | | 14,950 | 1,006 | 99,053 | 7,488 |
| Sunfish | | | | | 105 | 11 |
| Swordfish | | | 86,948 | 14,711 | 88,428 | 15,006 |
| Tautog | 500 | 50 | 20,633 | 1,957 | 21,942 | 2,068 |
| Tomcod | | | 455 | 37 | 455 | 37 |
| Tuna | | | 5,114 | 550 | 5,114 | 550 |
| Whiting | | | 9,317 | 175 | 9,317 | 175 |
| Lobsters | 163,674 | 45,633 | 423,895 | 96,547 | 740,848 | 189,157 |
| Squid | | | 3,612 | 258 | 3,612 | 258 |
| Clams: | | | | | | |
| Hard | 10,504 | 4,323 | | | [1] 49,976 | 18,912 |
| Soft | 208,950 | 30,541 | | | [2] 229,150 | 32,070 |
| Scallops | | | 38,400 | 13,717 | [3] 38,400 | 13,717 |
| Oysters: | | | | | | |
| Market— | | | | | | |
| Public | 106,708 | 15,210 | 7,000 | 3,000 | [4] 136,654 | 21,900 |
| Private | 2,250,857 | 242,830 | | | [5] 4,826,668 | 471,766 |
| Seed— | | | | | | |
| Public | 106,631 | 10,004 | | | [6] 740,516 | 68,349 |
| Private | 1,517,411 | 152,324 | | | [7] 6,493,865 | 525,001 |
| Total | 4,591,239 | 509,891 | 9,706,507 | 366,845 | 23,652,647 | 1,700,638 |

[1] 6,247 bushels. [2] 22,915 bushels. [3] 6,400 bushels. [4] 19,522 bushels. [5] 689,524 bushels. [6] 105,788 bushels. [7] 927,695 bushels.

FISHERIES BY APPARATUS.

Dredges employed in the oyster fisheries of Connecticut in 1919 were the most productive form of apparatus. In the vessel fisheries dredges took 11,844,084 pounds, or 1,692,012 bushels, of oysters, valued at $1,037,717, and in the shore fisheries dredges, tongs, rakes, and hoes took oysters to the amount of 353,619 pounds, or 50,517 bushels, valued at $49,299, and clams to the amount of 279,126 pounds, or 29,162 bushels, valued at $50,982. The catch with pots amounted to 768,078 pounds, valued at $192,629, of which 740,848 pounds, valued at $189,157, were lobsters. Otter trawls caught flounders, giant scallops, and hake to the amount of 2,359,221 pounds, valued at $103,031. The catch with purse seines amounted to 6,625,240 pounds, valued at $93,812, the principal species taken being menhaden to the amount of 6,608,400 pounds, valued at $91,765. Gill nets, used principally in the taking of shad, yielded 443,551 pounds, valued at $76,175. The quantity of shad taken with gill nets amounted to 374,823 pounds, or 86,567 in number, valued at $69,201, of which 53,822 were roes and 32,745 were bucks. Various species were taken with lines, amounting to 201,763 pounds, valued at $24,241; with pound nets, amounting to 379,371 pounds, valued at $22,047; and with seines, amounting to 189,160 pounds, valued at $21,680. All forms of apparatus employed in both the vessel and shore fisheries yielded a total of 23,652,647 pounds, valued at $1,700,638.

The following tables give the products of the vessel and shore or boat fisheries in 1919, by counties, apparatus, and species:

YIELD OF VESSEL FISHERIES OF CONNECTICUT IN 1919, BY COUNTIES, APPARATUS, AND SPECIES.

| Apparatus and species. | Fairfield. | | New Haven. | | New London. | | Total. | |
|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Purse seines: | | | | | | | | |
| Mackerel | | | | | 16,840 | $2,047 | 16,840 | $2,047 |
| Menhaden | | | | | 6,608,400 | 91,765 | 6,608,400 | 91,765 |
| Total | | | | | 6,625,240 | 93,812 | 6,625,240 | 93,812 |
| Gill nets: Mackerel | | | | | 41,688 | 4,310 | 41,688 | 4,310 |
| Lines: | | | | | | | | |
| Cod | | | | | 93,694 | 9,503 | 93,694 | 9,503 |
| Halibut | | | | | 25,000 | 5,000 | 25,000 | 5,000 |
| Pollock | | | | | 9,810 | 687 | 9,810 | 687 |
| Total | | | | | 128,504 | 15,190 | 128,504 | 15,190 |
| Dredges: Oysters— | | | | | | | | |
| Market— | | | | | | | | |
| Public | 1,400 | $160 | 3,500 | $610 | | | 4,900 | 770 |
| Private | 2,555,161 | 225,544 | 2,201,143 | 232,176 | | | 4,756,304 | 457,720 |
| Seed— | | | | | | | | |
| Public | 527,583 | 48,369 | 72,632 | 6,817 | | | 600,215 | 55,186 |
| Private | 4,965,254 | 371,717 | 1,517,411 | 152,324 | | | 6,482,665 | 524,041 |
| Total | 8,049,398 | 645,790 | 3,794,686 | 391,927 | | | 11,844,084 | 1,037,717 |
| Otter trawls: | | | | | | | | |
| Flounders | 45,605 | 2,527 | 3,330 | 200 | 439,841 | 14,943 | 488,776 | 17,670 |
| Hake | | | | | 10,000 | 100 | 10,000 | 100 |
| Scallops | | | | | 2,816 | 853 | 2,816 | 853 |
| Total | 45,605 | 2,527 | 3,330 | 200 | 452,657 | 15,896 | 501,592 | 18,623 |
| Lobster pots: Lobsters | 14,131 | 5,141 | 2,476 | 793 | | | 16,607 | 5,934 |
| Harpoons: Swordfish | 1,480 | 295 | | | 76,828 | 12,501 | 78,308 | 12,796 |
| Grand total | 8,110,614 | 653,753 | 3,800,492 | 392,920 | 7,324,917 | 141,709 | 19,236,023 | 1,188,382 |

YIELD OF SHORE FISHERIES OF CONNECTICUT IN 1919, BY APPARATUS, COUNTIES, AND SPECIES.

BY SEINES AND GILL NETS.

| Apparatus and species. | Fairfield. | | Hartford. | | Middlesex. | | New London. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Seines: | | | | | | | | | | |
| Alewives | | | 39,484 | $1,988 | 16,484 | $277 | 800 | $40 | 56,768 | $2,305 |
| Bullhead | | | 60 | 6 | 300 | 14 | | | 360 | 20 |
| Carp | | | 9,373 | 1,381 | 12,512 | 1,460 | 6,810 | 806 | 28,695 | 3,647 |
| Eels | | | | | | | 4,440 | 801 | 4,440 | 801 |
| Perch, yellow | | | 530 | 44 | 299 | 27 | | | 829 | 71 |
| Pickerel | | | | | 109 | 12 | | | 109 | 12 |
| Shad | | | 18,873 | 4,595 | 26,407 | 4,666 | 5,088 | 1,219 | 50,368 | 10,480 |
| Smelt | 4,114 | $886 | | | | | 293 | 50 | 4,407 | 936 |
| Striped bass | | | | | | | 600 | 151 | 600 | 151 |
| Suckers | | | 27,511 | 2,238 | 15,048 | 1,016 | | | 42,559 | 3,254 |
| Sunfish | | | | | 25 | 3 | | | 25 | 3 |
| Total | 4,114 | 886 | 95,831 | 10,252 | 71,184 | 7,475 | 18,031 | 3,067 | 189,160 | 21,680 |
| Gill nets: | | | | | | | | | | |
| Alewives | | | | | 11,446 | 385 | 9,297 | 1,572 | 20,743 | 1,957 |
| Bluefish | | | | | 925 | 92 | | | 925 | 92 |
| Carp | | | | | 31 | 3 | 2,968 | 334 | 2,999 | 337 |
| Eels | | | | | | | 94 | 9 | 94 | 9 |
| Menhaden | 300 | 25 | | | | | | | 300 | 25 |
| Shad | | | 15,465 | 3,876 | 268,428 | 48,392 | 90,930 | 16,933 | 374,823 | 69,201 |
| Squeteague | | | | | 1,104 | 111 | | | 1,104 | 111 |
| Striped bass | | | | | 850 | 110 | | | 850 | 110 |
| Sturgeon | | | | | 25 | 5 | | | 25 | 5 |
| Total | 300 | 25 | 15,465 | 3,876 | 282,809 | 49,098 | 103,289 | 18,848 | 401,863 | 71,847 |

YIELD OF SHORE FISHERIES OF CONNECTICUT IN 1919, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY POUND NETS, FYKE NETS, AND LINES.

| Apparatus and species. | Hartford. | | Middlesex. | | New Haven. | | New London. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Pound nets: | | | | | | | | | | |
| Alewives | | | 68,073 | $1,405 | 500 | $5 | 26,115 | $808 | 94,688 | $2,218 |
| Bluefish | | | 40 | 3 | | | 200 | 32 | 240 | 35 |
| Butterfish | | | 50 | 3 | | | 18,760 | 2,604 | 18,810 | 2,607 |
| Carp | | | 5,093 | 571 | | | | | 5,093 | 571 |
| Cusk | | | | | | | 6,767 | 73 | 6,767 | 73 |
| Eels | | | | | | | 2,150 | 300 | 2,150 | 300 |
| Flounders | | | 6,350 | 187 | | | 20,215 | 1,837 | 26,565 | 2,024 |
| Herring | | | | | | | 3,000 | 71 | 3,000 | 71 |
| Mackerel | | | | | | | 410 | 67 | 410 | 67 |
| Menhaden | | | 18,314 | 1,110 | 102,350 | 350 | 7,200 | 62 | 127,864 | 1,522 |
| Perch, yellow | | | 736 | 67 | | | 50 | 10 | 786 | 77 |
| Scup | | | | | | | 1,980 | 202 | 1,980 | 202 |
| Sea bass | | | | | 210 | 60 | | | 210 | 60 |
| Shad | | | 34,994 | 6,251 | 327 | 83 | 2,070 | 466 | 37,391 | 6,800 |
| Skates | | | | | | | 400 | 10 | 400 | 10 |
| Squeteague | | | 1,617 | 120 | | | 18,650 | 2,841 | 20,267 | 2,961 |
| Striped bass | | | | | | | 2,349 | 559 | 2,349 | 559 |
| Suckers | | | 6,069 | 384 | | | | | 6,069 | 384 |
| Tautog | | | 809 | 61 | 500 | 50 | 9,639 | 925 | 10,948 | 1,036 |
| Tomcod | | | | | | | 455 | 37 | 455 | 37 |
| Whiting | | | | | | | 9,317 | 175 | 9,317 | 175 |
| Squid | | | | | | | 3,612 | 258 | 3,612 | 258 |
| Total | | | 142,145 | 10,162 | 103,887 | 548 | 133,339 | 11,337 | 379,371 | 22,047 |
| Fyke nets: | | | | | | | | | | |
| Alewives | 677 | $20 | 2,710 | 55 | | | 1,564 | 82 | 4,951 | 157 |
| Bullhead | | | 65 | 3 | | | 1,067 | 77 | 1,132 | 80 |
| Carp | 2,481 | 256 | 873 | 111 | | | | | 3,354 | 367 |
| Eels | 4,768 | 1,038 | 98 | 10 | | | 8,100 | 1,884 | 12,966 | 2,932 |
| Flounders | | | | | 495 | 28 | 5,740 | 325 | 6,235 | 353 |
| Hake | | | | | 100 | 2 | | | 100 | 2 |
| Perch, yellow | 1,904 | 191 | 178 | 15 | | | 2,411 | 241 | 4,493 | 447 |
| Pickerel | 128 | 20 | 231 | 23 | | | 611 | 88 | 970 | 131 |
| Squeteague | | | | | 808 | 58 | 111 | 14 | 919 | 72 |
| Striped bass | | | | | 21 | 5 | 210 | 39 | 231 | 44 |
| Suckers | 28,065 | 2,326 | 7,410 | 518 | | | 14,950 | 1,006 | 50,425 | 3,850 |
| Sunfish | 80 | 8 | | | | | | | 80 | 8 |
| Tautog | | | | | | | 390 | 33 | 390 | 33 |
| Total | 38,103 | 3,859 | 11,565 | 735 | 1,424 | 93 | 35,154 | 3,789 | 86,246 | 8,476 |
| Lines: | | | | | | | | | | |
| Bluefish | | | | | 660 | 80 | 1,885 | 179 | 2,545 | 259 |
| Bonito | | | | | | | 6,120 | 912 | 6,120 | 912 |
| Cod | | | | | | | 2,442 | 100 | 2,442 | 100 |
| Eels | | | | | 515 | 48 | 2,012 | 357 | 2,527 | 405 |
| Flounders | | | | | 2,450 | 216 | 3,110 | 155 | 5,560 | 371 |
| Haddock | | | | | | | 350 | 38 | 350 | 38 |
| Mackerel | | | | | 7,400 | 1,572 | 25,051 | 2,994 | 32,451 | 4,566 |
| Pollock | | | | | | | 325 | 30 | 325 | 30 |
| Sea bass | | | | | | | 3,345 | 468 | 3,345 | 468 |
| Smelt | | | | | | | 310 | 45 | 310 | 45 |
| Squeteague | | | | | | | 786 | 113 | 786 | 113 |
| Striped bass | | | | | | | 780 | 195 | 780 | 195 |
| Tautog | | | | | | | 10,604 | 999 | 10,604 | 999 |
| Tuna | | | | | | | 5,114 | 550 | 5,114 | 550 |
| Total | | | | | 11,025 | 1,916 | 62,234 | 7,135 | 73,259 | 9,051 |

BY OTTER TRAWLS, HARPOONS, SCOOP NETS, POTS, AND SPEARS.

| Apparatus and species. | Fairfield. | | Hartford. | | Middlesex. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls: Flounders | 33,500 | $1,200 | | | 177,810 | $6,015 |
| Scoop nets: Shad | | | 621 | $156 | | |
| Pots: | | | | | | |
| Eels | | | | | 6,322 | 598 |
| Lobsters | 58,793 | 18,744 | | | 80,355 | 23,092 |
| Total | 58,793 | 18,744 | | | 86,677 | 23,690 |
| Grand total | 98,293 | 19,944 | 621 | 156 | 264,487 | 29,705 |

YIELD OF SHORE FISHERIES OF CONNECTICUT IN 1919, BY APPARATUS, COUNTIES, AND SPECIES—Continued.

BY OTTER TRAWLS, HARPOONS, SCOOP NETS, POTS, AND SPEARS—Continued.

| Apparatus and species. | New Haven. | | New London. | | Total. | |
|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Otter trawls: | | | | | | |
| Flounders | 93,200 | $4,357 | 1,511,535 | $59,972 | 1,822,045 | $71,544 |
| Scallops | ..... | ..... | 35,584 | 12,864 | 35,584 | 12,864 |
| Total | 93,200 | 4,357 | 1,547,119 | 72,836 | 1,857,629 | 84,408 |
| Harpoons: Swordfish | ..... | ..... | 10,120 | 2,210 | 10,120 | 2,210 |
| Scoop nets: | | | | | | |
| Shad | ..... | ..... | ..... | ..... | 621 | 156 |
| Smelt | ..... | ..... | 20,500 | 3,485 | 20,500 | 3,485 |
| Total | ..... | ..... | 20,500 | 3,485 | 21,121 | 3,641 |
| Pots: | | | | | | |
| Eels | 276 | 42 | 20,632 | 2,832 | 27,230 | 3,472 |
| Lobsters | 161,198 | 44,840 | 423,895 | 96,547 | 724,241 | 183,223 |
| Total | 161,474 | 44,882 | 444,527 | 99,379 | 751,471 | 186,695 |
| Spears: Eels | 13,362 | 1,870 | 277 | 50 | 13,639 | 1,920 |
| Grand total | 268,036 | 51,109 | 2,022,543 | 177,960 | 2,653,980 | 278,874 |

BY DREDGES, TONGS, RAKES, HOES, AND SHOVELS.

| Species. | Fairfield. | | Middlesex. | | New Haven. | | New London. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* | *Pounds.* | *Value.* |
| Clams: | | | | | | | | | | |
| Hard | 39,472 | $14,589 | ..... | ..... | 10,504 | $4,323 | ..... | ..... | 49,976 | $18,912 |
| Soft | 8,000 | 725 | 12,200 | $804 | 208,950 | 30,541 | ..... | ..... | 229,150 | 32,070 |
| Oysters: | | | | | | | | | | |
| Market— | | | | | | | | | | |
| Public | 17,542 | 2,720 | 4,004 | 810 | 103,208 | 14,600 | 7,000 | $3,000 | 131,754 | 21,130 |
| Private | 15,036 | 2,391 | 5,614 | 1,001 | 49,714 | 10,654 | ..... | ..... | 70,364 | 14,046 |
| Seed— | | | | | | | | | | |
| Public | 106,302 | 9,976 | ..... | ..... | 33,999 | 3,187 | ..... | ..... | 140,301 | 13,163 |
| Private | 11,200 | 960 | ..... | ..... | ..... | ..... | ..... | ..... | 11,200 | 960 |
| Total | 197,552 | 31,361 | 21,818 | 2,615 | 406,375 | 63,305 | 7,000 | 3,000 | 632,745 | 100,281 |

## WHOLESALE FISHERY TRADE AND MENHADEN INDUSTRY.

In 1919 there were 25 establishments engaged in the wholesale fishery trade of Connecticut, employing 559 persons, to whom $338,884 were paid in wages. The value of these establishments with their equipment, etc., was $418,801 and the cash capital utilized amounted to $81,500.

There were only two factories engaged in the reduction of menhaden to oil and scrap. The statistics of these plants have been included in the fishery industries table of Massachusetts.

○